

Addressing Sustainability in an Entrepreneurship Ecosystem:
A Case Study of a Social Incubator in Mexico

by

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ABSTRACT

Over the past few decades, businesses globally have advanced in incorporating the principles of sustainability as they strive to align economic outcomes with growing and complex social and environmental demands and opportunities. This transition is conditioned by the maturity, scale, and geographical location of a business (among other factors), with particular challenges placed on small enterprises in middle- to low-income communities. Within this context, the overarching research question of this dissertation is why and how business incubation processes may foster sustainable enterprises at the middle and base of the socioeconomic pyramid (MoP/BoP).

To explore this question, in this project I used as a case study the experience of a network of social business incubators operated by Tecnológico de Monterrey, a private, non-profit, multi-campus university system in Mexico. Centering on its campus in Guadalajara and in order to understand if and how MoP/BoP businesses address sustainability, I developed a current state assessment of incubator processes, analyzing during two semesters the activities of incubated entrepreneurs and their goals, motivations, and outcomes. The general expectation at the outset of the study was that Tec's social business incubation process, in both its design and implementation, focuses on the economic viability and outcomes of incubated projects and hence does not promote entrepreneur commitment to sustainability goals and practices.

The general approach of the research project involved a qualitative, in-depth ethnographic assessment of participants. Data were collected by means of the following research tools: (a) archival and documentary review, (b) participant observation, (c) surveys of participants (entrepreneurs and advisors/mentors), and (d) semi-structured

interviews of participants. The overall design of the research was inspired by the transitions management approach and by the intervention research method, while qualitative results were assessed under the grounded theory approach.

Results of the research are reported under three general categories: (a) analysis of entrepreneur goals, motivations, and outcomes, (b) identification of social and environmental opportunities, and (c) review of the role of social networks and broader support structures. While results confirmed the general expectation of the study, it was possible to establish (based on the interaction with the entrepreneurs and other actors) that there is both interest and commitment to identify and explore opportunities in social and environmental issues. Thus, the dissertation concludes with a proposal for potential future interventions in this social incubator, exploring a new vision and strategies for a transition to a more sustainability-oriented approach. Finally, key recommendations define the most critical elements of an agenda for transition in the social incubation process at Campus Guadalajara and provide input for other efforts.

DEDICATION

For Thomas and Gabriel,
the source and the rivers.

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CHAPTER 1

INTRODUCTION

A major challenge in the path to sustainable development is the difficulty of aligning individual values, attitudes, and behaviors with the pursuit of collective objectives (cf. Leiserowitz et al 2005). This dissertation addresses this challenge, which implies a mismatch that seems inherent to human nature: at the individual (and local) level, human beings tend to value and are more concerned about concrete, proximate issues (self, family, home, perhaps extended kin), than about those which are seen as more distant, alien, or abstract (see, for instance: Ridley & Low 1993, Penn 2003, Moran 2006).

Specifically, the challenge of aligning individual (private) and collective (public) values, perspectives, and goals is a relevant factor in the development of private business enterprises (cf. van Marrewijk, 2003). In this document, I intend to focus on this and reflect on how such human enterprises might mobilize resources, talent, and influence along shared values to advance common goals for sustainable development.

Over the past few decades, businesses globally have advanced in incorporating the principles of sustainability as they strive to align economic outcomes with growing and complex societal and environmental demands and opportunities. This transition is conditioned by the maturity, scale, and geographical location of a business (among other factors), with particular challenges placed on small enterprises in middle- to low-income communities. It is for this reason that the main subject in this study are Middle- and Base-of-the-Pyramid entrepreneurs in developing regions and communities. In this

Introduction, I will give a brief overview of this research study, its potential contribution, its validity and limitations, and a summary of how the document is organized.

Overview

This dissertation explores the general theme of how private actors (individuals and/or organizations) may align their interests, perspectives, goals, and strategies with broader community objectives towards sustainable development. Achieving this in practice entails a compromise between private and public agendas, which often diverge and fail to address social, economic and environmental issues in a balanced way (cf. WCED, 1987; Redclift 1993; Robinson, 2004; Kates et al, 2005). Indeed, solving sustainability problems requires public and private participation for the development of individual and community *capacities* (which include skills, competencies, knowledge, institutions, and relationships; cf., UNDP 2009), the identification of *new opportunities and solutions* for sustainable development, and the creation of an arena for the *collaboration* of diverse actors (Sandler 1992; Kates et al 2005; Wiek et al 2007).

Many fields emphasize both capacity development, new opportunity identification, and collaboration. These include asset-based community development (Green & Haines 2012), sustainable livelihoods (Scoones 1998; DFID 2003), corporate responsibility theory (Davis, 1973; van Marrewijk 2003), sustainable business (cf., Laszlo 2008; Senge et al 2008), and sustainable entrepreneurship (Cohen 2006; Parrish 2007, 2010). While engaging these references from the substantive perspective of business as a motor for sustainable development, this dissertation explores an emergent field that shows promise of harnessing positive effects in both the public and the private

domains. This field links three bodies of literature (and practice) which are seldom considered concurrently: social entrepreneurship, corporate community involvement, and regional sustainable development. Engaging them as a whole provides conceptual and empirical evidence of how private- and public-oriented approaches to development may be mutually reinforced to support Middle- and Base-of-the-Pyramid entrepreneurs in their effort to address not only economic objectives, but also a broad scope of societal and environmental problems and opportunities.

The obstacles to achieve this are, however, many. The “current state” of the world in general and of the business sector in particular reflects the traditional, capital-first international economic model. This model places profit over other priorities and is often represented by Milton Friedman’s 1970 editorial, “The social responsibility of business is to increase its profits” (Friedman 1970). It regards social and environmental impact and associated costs as externalities, and does not always visualize ecology and/or society as the context that contains business, but rather as resources and customers that are somehow “contained” within business endeavors (a notion that relates to the traditional “entrepreneurship ecosystem” concept that I will challenge later in the dissertation.)

This model, centered on global forms of capital, has of course generated enormous human achievements, but also unique and complex problems: the recent global recession has delayed the possibility of meeting the United Nations’ Millennium Goals and scarce economic resources restrain investment in business development, particularly in low-income regions. In many cases, fewer resources mean contested investment for social and/or environmental concerns, including poverty reduction and international aid, action on climate change, and slowing environmental degradation. Finally, even as

advances are being made, the current model often brings about a resistant and generalized mistrust between citizens, stakeholders, business, and government.

This context, with the ever-growing income gap and inequalities within and between nations, emphasizes the need for aligning private and public objectives to improve social, environmental, and economic outcomes for communities, regions, and nations. This begs the question: what is the possibility of achieving a more reasonable form of development, centered on urgent action on capacity building, new social and environmental opportunities, and creative social collaboration? While the challenges abound, there is nonetheless a worldwide effervescence of action around these themes. This dissertation is about this possibility and this promise.

Two often contrasting but complementary perspectives on local and regional development can be found in the literature and in worldwide action. First, the notion of creating a *Knowledge-Based Economy (KBE)*, in a “top-down” fashion, by way of the collaboration between university, business, and government, fostering the creation of entrepreneurship ecosystems centered on high-tech business. This might be best represented by the way groups like the Kaufmann Foundation approach entrepreneurship as a motor for development, which entails an underlying socio-political perspective (i.e., a more traditionally “capitalist” approach; cf. Schramm 2008 and 2009). The second, is the idea of *Community-Based Development (CBD)*, a “base-up” approach with focus on middle- to low-income citizens, supporting individual and community capacity- and asset-building. This might be named a more “social” view of development, well represented by asset-based community development strategies (Green & Haines 2012) and the sustainable livelihoods approach (DFID 2003; Scoones 1998).

In this context, this dissertation explores a potentially emerging “third way”, under the concept of the *role of business as a force for sustainable development*. This approach balances the KDE and CBD views and includes both the inward-looking perspectives of the business (private value and benefit) as well as the broader view and goals of the community (public value and positive social and environmental impact).

Universities can play a relevant role in the path to sustainable development, harnessing their knowledge and their prestige for positive social impact. They are prime locations for generating initiatives for both KBE (top-down) and CBD (base-up) approaches to development, and indeed they should strive to participate in both. Without doubt, they are also places where actions that support sustainability can both be developed and tested in its fundamental fields of education and research, and in its own operational processes.

This dissertation considers the experience of one such university, using as a case study the experience of Tecnológico de Monterrey (known as Tec), a private, non-profit, multi-campus university system in Mexico. The overall intention of this research entailed assessing this institution's achievements and potential as a motor for the sustainable development of Mexico, using as a subject the experience of its social incubator network.

Statement of the Problem: Research Question and Expectations

Within this context, the overarching research question of this dissertation is *why and how business incubation processes may foster sustainable enterprises at the middle and base of the socioeconomic pyramid (MoP/BoP)*. This question is inserted within the aforementioned broader theme of inquiry, which considers how private actors

(individuals and/or organizations) may align their interests, perspectives, goals, and strategies with broader social and environmental objectives, in order to support communities in their path towards sustainable development goals.

To explore the central research question, in this project I used as a case study the experience of a network of “*social*” business incubators operated by Tecnológico de Monterrey. Centering on its campus in Guadalajara and in order to understand if and how MoP/BoP businesses address sustainability, I developed a current state assessment of incubator processes, analyzing during two semesters the activities of incubated entrepreneurs and their goals, motivations, and outcomes. The general expectation at the outset of the study was that Tec's social business incubation process, in both its design and implementation, focuses mostly on the economic viability of incubated projects and hence does not promote entrepreneur commitment to sustainability goals and practices.

The general approach of the research project involved a qualitative, in-depth ethnographic study of participants. Data were collected by means of the following research tools: (a) archival and documentary review, (b) participant observation, (c) pre- and post-surveys of participants (MoP/BoP entrepreneurs and advisors/mentors), and (d) semi-structured interviews of participants. Qualitative results were documented and assessed using the grounded theory approach.

The overall research question was focused by means of a set of three *specific research questions*, with their respective expectations. These are described in detail in Chapter 3, but it is important to note at this time that these three questions structure the findings of the research, which are presented later under three general categories: (a) analysis of entrepreneur attitudes, goals, motivations, and outcomes, (b) identification of

economic, social, and environmental issues and opportunities, and (c) appraisal of the role of social networks and broader support structures.

The results confirmed the general expectation of the study. However, based on the assessment and interaction with the entrepreneurs (and other actors), it was possible to establish that there is both interest and commitment on their part to identify and explore opportunities with a wider view of the social and environmental outcomes of their economic-oriented efforts. This informs the potential for transitioning to a new vision for social business incubation, one that includes sustainability in its design and implementation and which will be the matter of Chapter 4.

Potential Contribution of this Research

This qualitative case study intends to make conceptual, methodological, and practical contributions to the field of regional development, sustainable entrepreneurship, and business incubation. The intellectual merit of this project rests in providing more thorough and interdisciplinary insight to several fields of the literature and practice which are seldom considered concurrently: sustainable business (sustainability and business strategy), social entrepreneurship, regional development, and corporate community involvement (the role of business in the pursuit of social or public value). In addition, this research project entails a theoretical and practical contribution by means of its conception and research design, which intersect business and sustainability-focused success measures.

The broader impacts of this project include the contribution of distinct, applicable knowledge regarding business incubation as a tool for sustainable regional

development, and the generation of lessons to improve the private and social results of training (knowledge transmission and skill development) and of stakeholder interaction and networking.

These impacts are of course important for the network under study, but can also have relevance for other contexts and applications. The results of this research will be made available (by means of publications and presentations) to different audiences in the fields of sustainable business, sustainable and social entrepreneurship, corporate community involvement, and regional sustainable development, not only for academic and theoretical interest, but also for practical application. More concretely, results will be provided to the network under study at Campus Guadalajara, in order to contribute to the improvement of its future operations, measurement, evaluation, and follow-up of outcomes. Though focused on this specific case, results can also inform efforts in social and sustainable business incubation that are being developed in other contexts and by other institutions.

Validity and Limitations of the Study

This is a work of small numbers, developed with a qualitative, social science methodology and perspective. During its development, the experience, personal objectives, and impressions of participants and practitioners were the means to understand the issues and to consider their implications and potential. In that sense, the transferability of the findings of this research are limited. In a first instance, they should be clearly useful for the social incubator network under study, in order to improve,

change, adapt, and potentially transition to a new model in the light of growing and pressing social, environmental, and economic challenges.

Beyond that, insofar as the study has privileged the view of relevant stakeholders and practitioners, and is written by a practitioner at heart, the learning outcomes of this study can be transferred more widely. This has already happened during the development of the research and in the past few months, when I have become involved with diverse groups and organizations, both within Tecnológico de Monterrey and beyond, that are dedicated to explore, design, and implement meaningful change in social innovation, entrepreneurship, and business incubation (for instance, *Incuba Social*, a local government-sponsored social incubator in Zapopan, Mexico, near Campus Guadalajara).

Thus, though the generalized application of findings may be limited, validity of the study is preserved by the method and discipline used during the research process. In that sense, this study at least shows sufficient internal validity to be relevant and significant (Morse et al 2002).

Document Organization

The dissertation is presented in three major blocks beyond this Introduction. Chapter 2 deals with the background for the research, from three distinct perspectives. First, a conceptual background, based on the review of relevant literature and theory related to regional development, sustainable business, and the social role of enterprises. Second, a methodological background, discussing major threads of theoretical approaches employed as general frameworks to frame and analyze the issues. Third, a

substantive and institutional background, recounting information about the university and the setting where the case study was developed.

Chapter 3 presents the results of the case study proper, in the form of a qualitative, current state assessment of the discourse and practice of the social incubator, from the perspective of participating entrepreneurs. Two main sections compose this Chapter: first, a summary of the approach to the research process, including research design and methodology. This Section includes a description of sample and method selection decisions, data analysis, and research activities developed at the study site. The second Section of the Chapter addresses the concept of sustainability in business incubation, as analyzed in the results of this research. After general results are presented, this Section details evidence supporting relevant issues for understanding how the incubator operates currently. Responding to the structure of the specific research questions and expectations, these findings are grouped in three main themes: (a) analysis of entrepreneur attitudes, goals, motivations, and outcomes, (b) identification of economic, social, and environmental issues and opportunities, and (c) appraisal of the role of social networks and broader support structures.

Chapter 4 deals with the overall, central research question of the dissertation, from a future-oriented perspective of sustainability research. In this sense, it develops a discussion of findings and an intervention proposal, to explore the potential design of a new vision and strategies for the social incubator under study, potentially transferable to other contexts.

Finally, Chapter 5 ventures a conclusion, reviewing how the major findings can point to a number of concrete ideas and proposals, presented in the form of an executive

summary. These ideas and proposals regard future directions both in the substantive matter of the dissertation (the transition to sustainability as an issue in social business incubation) as well as in potential avenues for additional research. The potential contribution (intellectual merit and broader impact) of this research is also assessed, along with a final reflection on the concept of entrepreneurship ecosystems and the role of social innovation efforts to help them become true motors for regional, sustainable development.

CHAPTER 2

ARGUMENTS FOR A TRANSITION: RESEARCH BACKGROUND

This Chapter introduces the dissertation by laying down the background for the research, from three distinct perspectives. The first, is the conceptual background, which is developed on a review of what relevant literature and practice establish as directions and opportunities for engaging sustainability in business. It entails a discussion of three broad strands of literature and theory: regional development, sustainable business, and the social role of enterprises. The second perspective entails a brief methodological background, in which I will discuss various major threads of theoretical approaches employed to frame, address, and analyze the issues and the data. Finally, the third perspective is the substantive and institutional background, which recounts basic information about the university and the setting where the case study was developed.

On the basis of this conceptual, methodological, and substantive background, I will develop over the rest of the dissertation the current state analysis and a future vision and strategy proposal for the social incubator network. This will allow the discussion of diverse topics with a more shared language and will set up, at the end of this Chapter, a model for sustainable business, which is an important contribution of this research and which was used later in the project to analyze results and propose a direction.

Conceptual Background: Literature Review and Theoretical Framework

(The Case for Sustainability in Business)

This Section introduces the major concepts in the literature and theory related to how sustainability is considered, in a broad sense, within the domain of business and

entrepreneurial activity. As an eminently action-oriented space, discourse or theory is often difficult to separate from practice.

Three related and broad strands, seldom considered together, will be reviewed: regional development, sustainable business, and the social role of enterprises. The first discusses in general terms the need for balance between “Knowledge-Based” and “Community-Based” approaches to development, both common in social and political discourse and practice, but apparently contradictory in nature.

The other two strands set up a possible new discourse to confront the current challenges facing human and social development and the role of business to address them. Thus, we will first present background on the role of sustainability in business strategy, focusing on understanding how business can explore new opportunities, from incremental improvements to true innovations, regarding its social and environmental role. Then, we will discuss the growing reality and future potential of the role of business in public value. This entails the discussion of a possible balance between for-profit (private value) and for-benefit (public value) objectives for business.

In this sense, this Section explores the conceptual arguments to incorporate the concept of sustainability into the principles, discourse, and practice of contemporary business enterprises. More concretely, this will define a number of arguments for the transition to a new approach to business, which includes: (a) arguments for the *balance between “top-down” and “base-up” approaches* to development, (b) arguments related to the *opportunities* (from improvement to innovation) that businesses may find in sustainability regarding their process, product/service, and overall strategy, and (c) arguments regarding the *purpose* that a business may have towards either or both its own

private interests and the broader interests of the community (social) or ecosystem (environmental), broadly understood as “sustainable value” (cf. Hart & Milstein 2003, Laszlo 2008, Hart 2010).

Focus on Development

Relevant literature and theory can illuminate the analysis of this case study and its implications for the pursuit of sustainability, and provide insights into the challenge of aligning private and public goals and perspectives. Specifically, two broad but key topics underlie the social incubator concept and program: knowledge-based development and community-based development on the one hand, both of which can inform a theory and practice for a sustainable value approach to business. In the next few lines, we will consider the apparent contradiction between these two common approaches to development, in order to define a potential for sustainable business as a bridge between them.

The first approach entails what we might consider a *top-down* view of knowledge-based development, which focuses on the value of ideas, support, and collaboration. As a major focus in literature dealing with development, the concept of knowledge as a source of growth and economic prosperity has gained relevance in the world, most notably in the agenda and budget of international development agencies (cf. World Bank 2003). Indeed, the project of “knowledge-based development” (constructing more competitive and successful regional economies on the basis of valuable ideas) has become the focus of governments, businesses, and universities in exemplary regions in the world, epitomized by Silicon Valley and similar high-value added, technology-intensive, and knowledge-

based contexts in the World (Porter 1990, Saxenian 1994, Rosenberg 2001, Etzkowitz 2008).

This project has generally focused on knowledge as high-end and high-value technological innovation, often in search of "technical fixes" for development (Juma & Yee-Cheong 2005). In many instances in the literature and in practice, this has translated into the objective of creating "ecosystems" for innovation and entrepreneurship (Moore 1993, 2006; Angraenni et al 2007; Simanis & Hart 2008). The ultimate goal of these ecosystems is to generate a better environment for innovation-driven businesses to thrive, which may lead to better economic growth and, in the case of developing regions, to a process of "climbing up" the "ladder of development" (Sachs 2008).

The literature highlights three major conditions for creating and maintaining these ecosystems. First, the capacity for generating and sharing ideas, understood as knowledge for innovation and for the creation of new enterprises, particularly in high-value, high-technology fields. Second, the ability to support innovation and entrepreneurship, by means of infrastructure (basic and technological) and of an institutional environment that is propitious for innovation and entrepreneurship (Sautet 2005). Finally, intense collaboration between sectors and actors based on a "triple helix" of university/industry/government relations (Etzkowitz & Leydesdorff 2000; Etzkowitz 2008). This final condition is related, among other sources, to the literature on social capital (Putnam 2000) and collective action (e.g., Sandler 1992).

The past three decades have seen, in many developing regions of the world and with varying degrees of success, an intensive focus on securing these conditions to provide improved opportunities for development (e.g., Viotti 2002). However, the project

of knowledge-based development is criticized on different fronts, including the notion that it is a top-down approach that highlights only the prospects of technological innovation, often without consideration to social and environmental impacts. While the conditions of ideas, support, and collaboration are relevant to the pursuit of the sustainable development agenda (cf. Kates et al 2005), the knowledge-based approach to development is questioned for not considering the cascading effects of innovation and technological "fixes."

With this in mind, a second approach explores a more social, base-up view of development. Indeed, the *base-up* view of community development, focused on asset and capacity building, and on livelihood strategies, emphasizes the social aspect of development. Different streams of literature provide another perspective to the knowledge-based, high-end focus, one that takes a base-up approach for community development. For the purposes of this dissertation, two major references are utilized: the concept of asset building as a community development strategy (Green & Haines 2012) and the literature on sustainable livelihoods (Scoones 1998, DFID 2003).

In this line of literature, community development is generally defined as "a planned effort to produce assets that increase the capacity of residents to improve their quality of life. These assets may include several forms of personal and/or community capital: physical, human, social, financial, and environmental" (Green & Haines 2012, p.vii). Thus, "one of the primary goals of community development is to make the local economy less vulnerable to shifts in production technology and in the market environment" (ibid, p.5-6). This perspective focuses on strengthening the assets of

individuals, in order to provide them with more opportunities to collaborate with the development of the community as a whole.

This theory aligns with the sustainable livelihoods approach (Figure 1), in particular with respect to the five forms of capital. The approach focuses on the possibility of transforming social structures and processes to reduce socioeconomic vulnerability, broaden the livelihood strategies of individuals and families, and improve their outcomes (cf. DFID 2003 for a clear and full description of the approach). For the purposes of this dissertation, the sustainable livelihoods approach provides a general framework to assess the role of social incubators, by understanding the interaction of human, social, financial, physical, and natural capitals as prime livelihood assets, and how transforming structures and processes can lead to changes in livelihood strategies and outcomes.

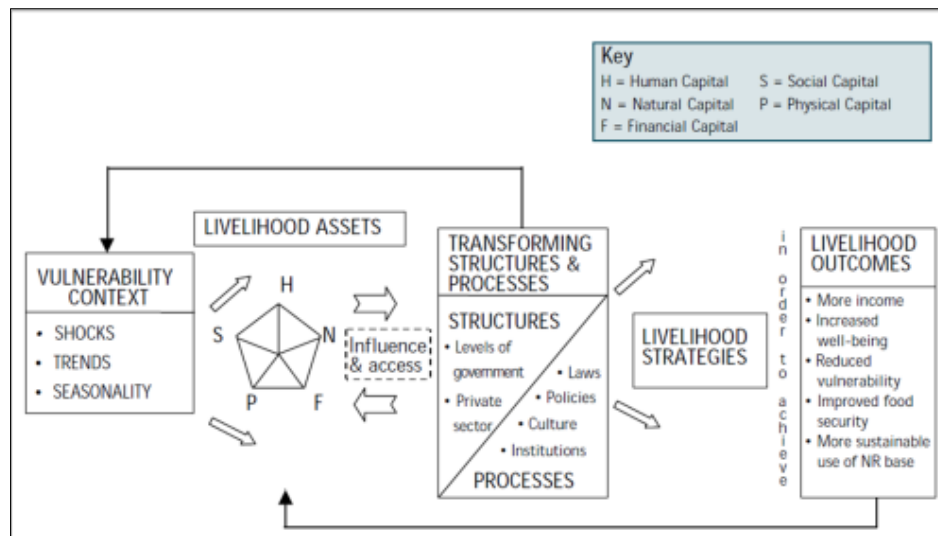


Figure 1. Sustainable Livelihoods Approach model (DFID 2003)

Sustainability and Business Strategy: Opportunity

Over the past three decades, sustainability has become a more relevant aspect in a discourse and practice that is emerging, despite inertia and financial setbacks: the argument that business is a force for solving complex social and environmental problems and that a sustainability strategy is good for business in the short as well as the long term. Not every business, of course, has embraced this argument yet. In addition, there is still a good level of distrust from some sectors of society and some governments as to the true intentions of business in addressing sustainability principles and practices.

Nevertheless, this emerging discourse is relevant and has been understood in this dissertation under the general theme of a company's ***opportunity***: how the potential role of business as a motor for sustainable development can be incorporated as a force for social and environmental good and as a tool for maintaining *economic viability*, by means of innovation in a company's strategy, products and services, and/or operations. In this sense, the literature and practice around opportunities in sustainability for business strategy includes many strands. In the next two sections, I will describe ideas relevant to this dissertation in the connected fields of *Sustainable Business* and *Sustainable Entrepreneurship and Business Incubation*.

However, before introducing this discussion about the opportunity that sustainability entails for business strategy, it is important to briefly consider what is meant by "sustainability" and "sustainable development." The United Nation's World Commission on Environment and Development (WCED) report provided what has been since 1987 a widely known and useful definition of *sustainable development* when it pointed out humanity's ability to achieve "development that meets the needs of the

present generation without compromising the ability of future generations to meet their own needs" (WCED 1987, p.8).

This definition, although not exempt from controversy (cf. Robinson, 2004; Redclift, 2005; Du Pisani, 2006), is a point of departure for reflecting about and establishing a position on economic development that supports human development and well-being while preserving natural resources and ecosystems, the ubiquitous triad of *Economy, Society, and Environment*. Indeed, critics have considered the concept of sustainable development “a contradiction in terms, in the sense that genuine sustainability and genuine development would, from a puristic point of view, be irreconcilable” (Du Pisani 2006, p. 94). Nevertheless, the pursuit of sustainable development, understood in essence as a more socially and environmentally responsible path to growth, has become a new morally defensible and inspirational paradigm for many institutions, organizations, governments, and individuals.

Kates, Parris, and Leiserowitz (2005) have emphasized that the “ambiguity” and “malleability” of this definition afford the project of sustainable development with “much of its resonance, power and creativity” (p.20). In practice, they argue, sustainable development is also defined by social movements, institutions, the development of science and technology for sustainability, and the negotiation of a “grand compromise” between the competing goals of economic development, the improvement of the human condition, and environmental preservation (p.19-20). However, on the ground, the achievement of this compromise has become a fundamental challenge for sustainable development, as private and public agendas often diverge and fail to address the three issues in a balanced way.

Finally, it is important to note that *sustainability* and *sustainable development* are of course not synonyms. Many environmental activists and scholars point to the contradiction noted above, defending a “green” agenda where development itself (understood in its current sense of unimpeded economic growth) is questioned. Nevertheless, for the purposes of this study, while it might be important to differentiate the two notions in some contexts, I shall be using sustainability and sustainable development essentially as synonymous.

Sustainable Business.

Contemporary businesses are operating under complex challenges, uncertainties, and structural conditions related to sustainability. These include issues that are relevant in terms of (a) strategy (global interdependence, increased competition under diminishing margins, confusion in scope of what sustainability means for business), (b) practical operations (compliance with new regulations under policy uncertainty, lack of focus in sustainability reporting, misaligned executive and employee incentives, difficulty of control over full supply chain), and (c) ethics and responsibility (increased relevance of diverse groups, relation between financial performance and social impact, nested scales of action and influence).

While these categories are not discrete and often overlap, fundamental structural challenges point to the necessity of incorporating the goals of sustainability into the basic strategy, organizational fabric, operation, and philosophy of human enterprises. In the midst of competing goals for survival and social responsibility, enterprises of all kinds struggle with organizational constraints and obstacles to align and execute their basic processes.

Described as an emerging form of capitalism, where "environmental and social performance is embedded in the competitive strategy" of firms (Hart 2010, Chapter 1), the concept of sustainable development has been incorporated into the goals and language of many business, governmental, and academic enterprises.

Sustainable development (or sustainability) in business is thus an emerging trend since at least 1992, after the UN Summit and later the creation of the World Business Council for Sustainable Development or WBCSD. In this trend, the inclusion of environmental and social concerns in operations (process), in core business (products/services) and in strategy (overall efforts and direction) have become relevant to their prospects and outcomes (cf. Holliday et al 2002). More and more, there is a growing role for stakeholder participation and a growing presence of the community and the general public and the environment (via NGOs or activists) as relevant actors in the face of businesses worldwide.

With all this, sustainable development has in fact become no longer a choice, but an imperative to ensure the survival of human communities, ecosystems, and businesses themselves. Indeed, for the business community this is summarized in the concept of "license to operate," i.e., the "permission" that stakeholders and the community give in order to be able to conduct business, more often in regions with acute social and/or environmental issues.

Much of the literature and practice has focused on the idea of a "Business Case for Sustainability," which summarizes the arguments that can move the leadership of a business to consider the social and environmental effects of their actions. Often, the arguments are to be financial or regulatory, considering the fundamental role of a

business, which is indeed to make money. But more and more enterprises are turning to incorporate sustainability principles in their core values and operations, making a broader “Case for Sustainability in Business.”

The use of innovation as a tool for environmental and social responsibility may thus become not only a moral obligation but also an *opportunity* for innovation in the strategic makeup of a business, including but not limited to its products and services, and to its operation and process. This is a concept that has grown in exposure in literature and practice, with ideas such as "sustainable value" (Blue Skye 2007, Laszlo 2008, Hart 2010) and "sustainable innovation" (Cooperrider 2008). Nevertheless, in much of the literature and action on the matter, the focus of innovation for sustainable development is, in practice, not much more than the "greening" of business and society, often based on operational improvements and technical fixes that address the risks of environmental degradation, social strife, climate change, and uncertainty as one would address cost cutting and efficiency (cf. Hoffman & Woody 2008). Though it may be an overly simplified assessment, this is the emphasis of many proposals for incorporating sustainability in business and entrepreneurship, including the “ecopreneur” concept of Schaper (2005) or even the seminal work on business and environment exemplified by Welford and Starkey (1996) and which centers on environmental responsibility.

In recent years there has been growing interest and emphasis, as well as abundant literature, on the opportunities of sustainable enterprise (Hart 1995, 1997; Hargroves & Smith 2006; Epstein 2008; Senge et al 2008; Laszlo 2008; Hart 2010; Unruh 2010) and sustainable entrepreneurship (cf. Cohen 2006, Parrish 2007, and Parrish 2010). Beyond these relatively well known efforts to make business in general more sustainable, the

issue of entrepreneurship in general (the creation of new business ventures, often based on product, service or process innovation) is more relevant for this dissertation, and will be addressed below.

All this development notwithstanding, there is a need in the theory and practice of business, to move beyond “the Business Case for sustainability” and incorporate the “Natural” and the “Societal Case” (based on the relevant paper by Dyllick & Hockerts, 2002). Even as the business community is embracing the notion of a literal triple bottom line in their operation and accounting, there is still a long way to go to achieve a true balance between profit maximization for shareholders and other social concerns of citizens and stakeholders (in part, laws need to change for this to happen, an issue currently debated in some business contexts and in the recent apparition of legal constructs such as the *for-benefit corporation* category, as described in Sabeti 2011). Still, the corporate responsibility and social entrepreneurship arguments are increasingly being used and promoted as central to a “business case” for sustainability.

However, from a more profound sustainability perspective, the focus should be placed on emphasizing the need to move beyond narrow arguments to include considerations that truly address the environmental and social impact of business (cf. Dyllick & Hockerts 2002; Young & Tilley 2006; Cohen et al 2008). This more complete vision of going *beyond* the “Business Case” for Corporate Sustainability (see Figure 2) entails six potential avenues: (a) Eco-Effectiveness, (b) Eco-Efficiency, (c) Socio-Efficiency, (d) Socio-Effectiveness, (e) Ecological Equity, and (f) Sufficiency (see also Gladwin et al 1995a, 1995b).

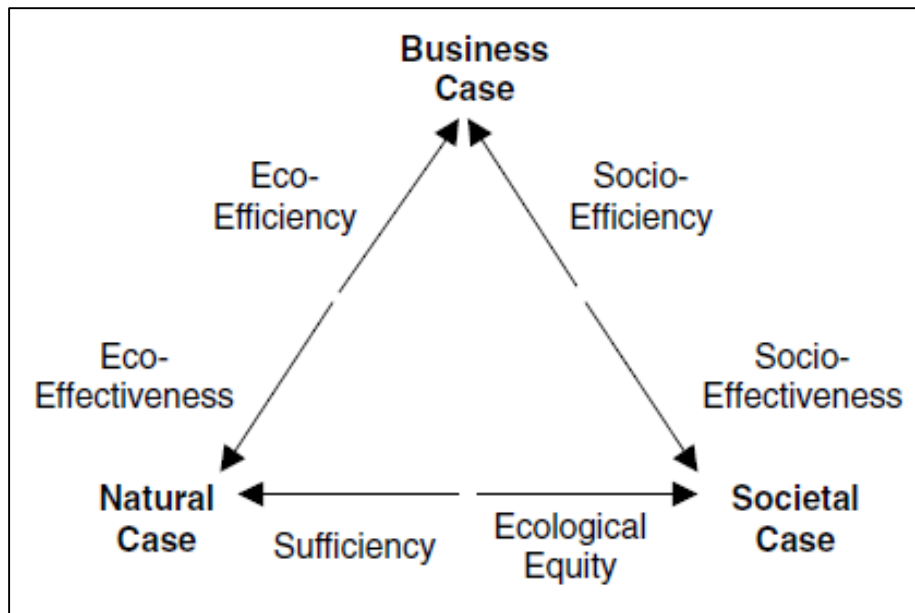


Figure 2. Going beyond the “Business Case” for Corporate Sustainability (Dyllick & Hockerts, 2002)

In other words, a more complete sustainability perspective implies the inclusion not only of measures for return on financial capital (translated at the most in eco- or socio-efficiency measures, such as cost reduction, risk aversion, or license to operate). As Dyllick & Hockert argue, there is in addition an urgent need to include measures that consider benefits and impacts in the natural and social capital of a business, in ways that make evident the value of related decisions in support of both public benefit and entrepreneurial progress. This is what the authors emphasize as more “effective” ways of benefitting the natural and the social context in which a business operates, a notion that was also introduced by McDonough and Braungart (2002) in their seminal book *Cradle to Cradle*, which emphasizes eco-effectiveness as a central business, design, and industrial strategy (please note that, for the purposes of this dissertation, I will not consider the other two dimensions of “sufficiency” and “ecological equity,” as they address only relationships between social and natural criteria for business).

Sustainable Entrepreneurship and Business Incubation.

As a field of knowledge and practice, entrepreneurship in general is defined as the impulse to innovate and launch business projects. The concept was seminally defined by Schumpeter (1934, 1942) in terms of “creative destruction”, i.e., the process where a (relatively) stagnant market context is shaken by new products, services, or business models. However, as much as the new business of an entrepreneur may be disruptive or revolutionary, “it is much more likely to be of the incremental kind that enters an existing market” (Bygrave 2004).

An entrepreneur “encompasses everyone who starts a new business. Our entrepreneur is someone who perceives an opportunity and creates an organization to pursue it. And the entrepreneurial process involves all the functions, activities, and actions associated with perceiving opportunities and creating organizations to pursue them” (Bygrave 2004, p.2). Entrepreneurial theory strives to understand personal attributes and attitudes of a person, as well as contextual, sociological, economic, and organizational factors that trigger or facilitate opportunity identification and seeking.

It is important to introduce here that, in order to support entrepreneurial ventures, there is a current emphasis on the incubation of ventures. Business incubation centered initially on provision of space and services (clerical, financial, informational) that support the development of new enterprises (Hackett & Dilts 2004). Beyond provision of physical space and services, it evolved to focus rather on knowledge and capacity building, as well as access to information, social networks and contacts, financial resources, etc. (Tötterman & Sten 2005). This will be discussed in more detail below.

Much of the literature and practice on entrepreneurship relates to the knowledge-based perspective and focuses on the creation of new enterprises based on high-end and high-tech sectors and products (more attractive because of their higher value as compared to primary sectors). However, the complexity of achieving the triple goal of sustainable development (manifested in history and in the current scenario) demands a more transformative approach. The construction of such an approach may begin by looking at the proposal of Parrish (2007), who elaborates on how *sustainability entrepreneurs* might use private enterprise as a tool for sustainable development (see also Schaper 2005; Cohen 2006; Tilley & Young 2009; Hall et al 2010; Hockerts & Wüstenhagen 2010).

In his view, the dominant paradigm in the literature of enterprise, entrepreneurship, and innovation continues to involve the "three common tenets [of] economic efficiency, profit maximization, and capital accumulation" (Parrish 2007, p.3). Even the leading efforts towards "sustainable business" (in the academic and popular literature and in practice) tend to focus, Parrish argues, only on either (a) making the "business case" for sustainability, i.e., aligning or layering the concept within the common tenets of efficiency and profit, or (b) developing business opportunities in the social service or environmental sectors, such as the opportunities that exist at the social "bottom of the pyramid" according to Prahalad (2006) or in the growing "cleantech" sector of applied technology for energy efficiency.

Both approaches are of course a positive and well-directed start. However, Parrish argues for the need of a "theory of sustainability entrepreneurship" that contributes to the creation of "new enterprises that, from the very beginning, incorporate principles of sustainable development into their organizational designs" (p.4), taking advantage of the

opportunity that the early stage of enterprise formation and development offers for innovative forms of fusing sustainability into the vision, strategy, business model, and organization of the enterprise. Thus, he argues for eschewing "the dichotomy between opportunistic business and altruistic charity" in favor of the emergence of a "new organizational logic based on the co-production of multiple benefit streams through the perpetuation of human and natural resource quality" (p.1).

In parallel, a broad body of literature and experience focuses on business incubation in general (Tötterman & Sten 2005, Hughes et al 2007, Lalkaka 2006). In the general sense, business incubators are physical spaces that encourage the development of new enterprises, providing services and resources to young firms in their start-up phase (when they are most vulnerable to all types of stress). The literature rarely mentions the term and concept of "social incubation." An exception is found in Aernoudt (2004), who describes a social incubator as a physical place whose: "[...] aim is to stimulate and support the development, growth and continuity of companies employing people with low employment capacities. The aim is to bridge the social gap by increasing employment possibilities for those with low employment capacities such as disabled people, minimum guaranteed income beneficiaries, low-skilled workers, long-term unemployed, immigrants, political refugees, etc." (Aernoudt 2004, p. 129).

For the purposes of this dissertation the concept of social incubator will be understood under a broader definition, and will be used to refer to the transfer of the general model of business incubation to lower socioeconomic sectors of a community. Following Aernoudt (2004) and the business incubator literature, emphasis is placed not only on support by means of physical space and services (i.e., "hosting" or "soft-

landing”, office space, clerical support, information, etc.) but most importantly on the transmission of ideas and knowledge, the development of individual and social capacities, and the integration of new firms into social and commercial networks. Thus, the incubation concept should involve the mentioned conditions of ideas, support, and collaboration. This includes and emphasizes the need for mobilizing opportunities so that entrepreneurs can succeed in acquiring social and financial capital (i.e., entrepreneurial networks, angel investor "clubs", access to microloans, etc.).

Role of Business in Public Value: Purpose

The role of business in public value (in social and/or environmental terms, can be understood under the general theme of a company’s ***purpose***: how it balances its valid, survival-oriented search for private benefit (profit for owners and shareholders) with a concern for the benefit of the community and the general public (care for the well-being of stakeholders, even those not directly related to the company). In this sense, the literature and practice around business as an actor in search of public value includes many strands, but I will here focus on three: *Social Entrepreneurship*, *Corporate Community Involvement*, and *Base of the Pyramid Engagement*.

From Non-Profits to Social Entrepreneurship.

Social entrepreneurship has been a field of study for several decades, but has really caught fire in the last few years (since the early 2000’s to date). It entails, at its core, the idea of creating new enterprises that respond to social problems or opportunities (i.e., they have a “mission-related impact”), with diverse approaches to *if* and *how* they pursue an economic purpose for private profit (cf. Dees 1998, Martin & Osberg 2007;

Bornstein & Davis 2010). More generally, social entrepreneurship involves using the creative tools of business for the purpose of creating social benefit (Bornstein 2004; Polak 2008; Yunus 2010; Polak & Warwick 2013), regardless of the approach to the economic purpose of the enterprise (i.e., profit, non-profit or mixed objectives; cf., Peredo & McLean, 2006). The concept has also been used to describe the interaction between the public, private, and social sectors, defining an emerging “fourth sector” as described in Sabeti (2009).

In this research project, social entrepreneurship is understood also as the creation and consolidation of enterprises by individuals who are deemed to be at the “middle” (MoP) or “base” (BoP) of the socio-economic pyramid in their local, regional or national context (regardless of whether or not the enterprise has a “social benefit” objective). This definition describes more closely what is happening at the research site (the social incubator at Tec), rather than an ideal definition of social entrepreneurship.

This meaning, however, also reflects the fact that for the past decade there has been growing interest in entrepreneurship as a force for social development, centered on underserved members of communities, most notably in developing countries (Sautet, 2005; Schramm, 2009; Walzer, 2007). Thus, recent literature and practical applications have focused on creating what might be termed “social entrepreneurship ecosystems” (Simanis & Hart, 2008) in developing urban and rural regions, to support efforts in the lower socioeconomic sectors of a community (the so-called “middle” or “base of the pyramid”), regardless of whether or not they seek economic profit (Hart & Christensen 2002; Prahalad 2004; Sabeti 2009).

Recent efforts have been made in the academic literature and by practitioners to clarify the diverse “shades of gray” and hybrid models that run the continuum between “Profit” and “Non-Profit” entrepreneurial efforts (Martin & Osberg 2007; London et al 2009; London & Hart 2010). The result is that the boundaries are starting to be erased, with great opportunities and creative models for solving pressing community and social problems.

To summarize, and quoting Martin & Osberg (2007): A social entrepreneur is “someone who ...targets and unfortunate but stable equilibrium that causes the neglect, marginalization, or suffering of a segment of humanity; ...who brings to bear on this situation his or her inspiration, direct action, creativity, courage, and fortitude; and ...who aims for and ultimately affects the establishment of a new stable equilibrium that secures permanent benefit for the targeted group and society at large.”

This inspiring definition and the preceding discussion is relevant today, as there is a possibility that Tec will engage these types of projects. Currently, it is exploring projects within and beyond the social incubator that blur the distinction between entrepreneurs with social and/or environmental projects and those with “only” private economic interests. This is a promising avenue of research and practice in the future.

From Corporate Social Responsibility to Corporate Community Involvement.

Recent literature and practical applications have explored the benefits, both private and public, that may accrue from the involvement of established and new businesses in sustainable development endeavors in general (Hart 2007; Lakin & Scheubel 2010; Laszlo 2008; van Marrewijk 2003) and in MoP/BoP entrepreneurship

efforts in particular (Davidson 2009; Hart & Christensen 2002; Polak 2008; Prahalad 2004; Prahalad & Hart 2002; Simanis & Hart 2008; Polak & Warwick 2013).

Beyond traditional approaches to Corporate Social Responsibility (CSR) as charitable or philanthropic efforts, Corporate Community Involvement (CCI) involves the collaborative engagement of businesses in creating mutually beneficial synergies with their community to achieve significant “social impact.” This goes well beyond “philanthropy” and “corporate” or “social” responsibility theory and practice (cf. Davis 1973; van Marrewijk 2003; Salzmänn et al 2004). Lakin & Scheubel (2010) establish CCI as the ultimate level of social engagement of a business, much more productive in terms of shared value, which builds on previous efforts, namely: (a) Corporate giving (charitable donations), (b) Strategic Philanthropy, (c) Social Sponsoring, and (d) Corporate Citizenship (partnering in social, environmental, and economic causes).

In this research project, CCI is understood firstly as Tecnológico de Monterrey’s motivation to engage in community work, while for most of its history it focused on private, free-enterprise challenges. But the concept of CCI is valid as well to explore how incubated entrepreneurs might consider, at their level of income and opportunity, to include in their practice notions regarding a synergic alliance with the community and the social / environmental context that is good for the business as well.

With its focus on providing insight regarding the balance of private and public value, this project explores as an emergent research field the link between (1) the support of new entrepreneurs and their ventures, particularly in underserved sectors of communities, and (2) the growing role that corporate community involvement can play in improving the broader social, economic, and environmental benefit of such ventures.

In terms of sustainability, van Marrewijk (2003) has interpreted CSR through five possible levels of increasing commitment. The first two, "compliance-driven" and "profit-driven," reflect an internal focus on self-enhancement, based on obligation or opportunity and of benefit to society only in a passive way. The middle level, "caring", reflects a more active role in the community, but often depends on charitable contributions from the surplus of a business. The two final levels of "synergistic" and "holistic" engagement point to a higher order of commitment and innovation for the sustainable development of a community, where the goals and strategies of an enterprise become increasingly entwined with those of the community (see also van Marrewijk & Werre 2003).

This discussion is relevant for Tecnologico de Monterrey, as in their vision student formation includes preparing future graduates as social actors with a “human sense”, who search for more than exclusive personal benefit. This translates also to the opportunity of incubating entrepreneurs with the same synergistic and holistic logic.

Engaging the Middle and the Base of the Pyramid.

The concept of "Base of the Pyramid" (BoP) refers to the relative size of the disadvantaged population locally and globally. It also centers on the creation and consolidation of enterprises by individuals who are deemed to be at the “base” of the socio-economic pyramid (Prahalad 2006, Hart & Christensen 2002, Polak 2008, Simanis & Hart 2009; Yunus 2010, Polak & Warwick 2013).

A first impulse in the literature and in the business community focused on the dubious business opportunity of "selling to the poor" (the great "fortune" at the "bottom" of the pyramid, as conceived by Prahalad 2006). Tactfully fixing the conceptual misnomer, and referring now to the “Base of the Pyramid”, more recent elaborations of

the concept, however, understand the benefit that established businesses might acquire by creating synergies with growing numbers of entrepreneurs in impoverished urban and rural areas of the world (cf. the *BoP Protocol* model of shared value and collaboration in Simanis & Hart 2008).

Thus, further elaboration of the concept propose “new” or “second generation” BoP strategies (London & Hart, 2010). These emphasize more the potential of low-income persons in “developing” countries to become producers, sellers, and even partners of multinational corporations. In this new vision, the exploration of sustainable forms of business is pursued.

Still, the concept remains rather paternalistic and often focuses on a “top-down” approach to development and business. In addition, the “BoP” is often used as an overly broad concept, without precise definition and without regard to the explicit, complex, and diverse characteristics that it takes in different contexts. There is then a need to address the BoP concept as a concrete reality in need of contextualization, defining its key features and the challenges that exist in its transformation.

Regarding its size, there is ongoing discussion about the methodology and “yardsticks” used to determine a cutoff line for the BoP. Generally defined as the population with the lowest income, who survive on less than US\$2.00 per day (Prahalad 2006), usual estimations count 4 billion people worldwide. While there is of course great variation across countries and regions in terms of the relative “width” and “height” of the BoP, it is generally assumed to include close to half and, in some cases, the majority of the population in each developing region.

Regarding the role of the poor in the economy, and independent of the reference used to determine the population that falls in this socio-economic category, the “base of the pyramid” is composed by the people who are generally considered, in each region, to be excluded from or underserved by the current global model of capitalism. For an important percentage of these people, the economic system does not even respond to their most basic needs, which include nutrition, health, sanitation, housing, and a source of livelihood. Among those people that do participate in some way (as sellers or as workers), many are considered to function outside the “formal” norms and operation of the economic system in their locality or region.

Regarding the diversity of composition of the BoP across regions and locales, there is a very wide variation in the characteristics of the BoP in each region and of course even within each country. Beyond the obvious differences to be found in what is considered the BoP in “developed” and “developing” regions (the “North-South” divide as described in Kates et al 2001), there is variation from national to local scales and from rural to urban conditions. In this sense, the BoP concept hides many differences that in “real” contexts may range from a middle class level to extreme cases of poverty.

This diversity is more patent when addressing concrete needs and assets of the population. Again with variation across regional cultures and their values, needs and their prioritization are highly diverse, and can include both material aspects (food, clothing, sanitation, housing, work tools) as well as relatively more complex requirements for development (education, the capacity for self-sustenance). On the other hand, BoPs across different regions vary in the assets that are available to the population (both personal, in the community, or in the general socioeconomic structure). This implies

great diversity in the definition of human agency within each region, and the structure of choices available for development.

Finally, a common notion is the vulnerability of this population. Indeed, and compared to other groups in the same regional or national context, the population at the BoP is generally considered to be more vulnerable to diverse stressors, which can include sudden shocks or relatively progressive changes. Some of these stressors can be physical (natural disasters that lead to loss or displacement) and thus locally or regionally generated. Others may be economic or market-generated and, because of the interconnectedness of the global the economy, may be produced at a great distance from the populations it affects (e.g., international fluctuation in the prices of locally-grown products). The BoP is more vulnerable than other groups in the same context because of the needs and assets that are defined in each region by human agency and structure.

Related to these key features, several notable challenges can be addressed. A first challenge addressed in the literature is the problem of measuring the size and composition of the BoP. While there is some debate on this issue (what is BoP in one place may be the middle class in another, based on income per day), London and Hart (2010) have recently argued that the value of the concept is based on its empirical and illustrative convenience, rather than on precise measures. Nevertheless, measurement matters and is an issue to be addressed by serious studies of the BoP concept and reality.

A second challenge has to do with defining whether, how, and when the path to economic formalization is the best decision for a region. International agencies and governments emphasize the desirability of moving the BoP to the formal economy, arguing both for taxation and for institutionalization to deter seriously illegal activities

(Sautet 2005). As described elsewhere, however, the value of the informal economy should not be discounted in the economic growth of a region and its people (cf., De Soto 2002), most importantly in some phases.

The diversity across BoPs highlights the challenge of locally defining needs and assets, particularly when external actors are involved (in the form of foreign aid, firms, consultants, international agencies, etc.). Max-Neef (1991) and others have stressed that needs can only be identified and prioritized locally and that the available assets are often unclear (even to the locals). Thus, the challenge translates as building the ability to identify, on the ground and at a minimum, the needs that imply lack of products or material things, on the one hand, and those that relate to individual and group capacity, on the other. This emphasizes the importance of base-up, locally defined approaches to development.

Finally, a huge challenge exists in the global nature of many stressors that affect vulnerable communities. In the global challenge to transform the characteristics and conditions of the BoP, some suggest that the “pyramid” needs to become a “diamond,” with a growing middle class and shrinking masses of the extremely poor (Hahn 2009). Despite recent improvement, the interconnected nature of the global economic crisis has curtailed relevant advances on this goal.

Furthermore, considering how these differences may impact sustainability-related efforts in Mexico and in the subject matter of this dissertation, the following issues seem relevant:

First, in order to move towards sustainability, it might be wise to take advantage (at least temporarily) of the informal reality in Mexico, in order to identify and enhance

capacities for self-sufficiency and construct opportunities for new businesses that are economically healthier and respond better to their contextual conditions and needs. While the focus should eventually lead to formalization, as De Soto (2002) has argued there needs to be space in the short term for informal business to thrive and to find opportunities for financing (usually reserved only to formally established enterprises).

Second, BoP development, again, must be defined on the basis of diverse local needs and assets, which may be difficult to appreciate when contrasted with a more developed context. A more sustainable path for the BoP entails, among other things, taking the opportunity to find a road to development that is clearly distinct from what the “North” has taken, with its focus on excessive production and consumption. Livelihood improvement planned and facilitated with respect to a local assessment of needs and assets, and with respect to the local social and environmental contexts, may lead to defining more sustainable thresholds.

Third, in business BoP literature and practice, and in many international interventions, the BoP is taken homogeneously without considering contextual variations. As has been mentioned, the BoP in Mexico may include extreme poverty and middle class, where there is less pressure in terms of needs and greater potential in terms of personal and community assets (including basic education). Thus, while the “true base” of the pyramid requires urgent response regarding fundamental needs, there is an opportunity in Mexico to engage other sectors of the population (the “top of the base” or the “middle” of the pyramid, so to speak) to achieve greater returns on development, both individually and collectively, and more potential for the integration of a sustainable focus.

Thus, the above discussion is relevant for the social incubator in Guadalajara, as it focuses on “Middle” or MoP entrepreneurs. Campus Guadalajara focused on this sector, rather than the BoP, considering that they have more opportunity for job creation (this will be discussed more amply in Chapter 3, Preliminary Work). BoP approaches, as understood from the above literature and practice review, are still relevant for this dissertation, however, as they emphasize opportunities for collaboration and business success not only in mid- to low-income settings, but also with high-income and high-value-added ventures.

Methodological Background

This Section of the dissertation discusses the background from a methodological perspective. Here, I will discuss various major threads of theoretical approaches that were considered and employed to address and analyze the case study, understand the issues and consider the data. While these various approaches do provide ideas and usable methods, they form more of a philosophical background to the way the dissertation was designed, how the research was conducted, and how results and recommendations were reached.

Future-Orientation for Sustainability

The following approaches can all emphasize a “Theory of Change” for sustainability, with relatively common approaches to (a) defining a vision; (b) “backcasting” to a current state; and (c) defining strategies for moving towards the vision. While they all entail specific methods, they are viewed here more as inspiration to the

approach taken to the case study that is the matter of this dissertation. This Section will thus briefly introduce and discuss major frameworks that informed my approach to research, which is described in detail in Chapter 3.

Though their language and/or concepts differ, these approaches share in common several aspects beyond their orientation on the future and on change. One of the most important is their focus on persistent or “wicked” problems: social, environmental, and economic challenges that are utterly complex and embedded in social structure, uncertain in their very nature, and as hard to understand as they are to manage and solve (Rotmans & Loorbach, 2009).

In general, these approaches center their methodology in four steps: (a) the analysis and characterization of the current state of a problematic situation or context; (b) the definition –usually collaborative– of a desirable vision for the future; (c) the creation and consideration of plausible scenarios to motivate action (negative or positive alternatives to the current state and vision); and (d) the proposal of concrete courses of action as strategies to achieve the desired vision. In the literature and practice, these approaches entail “backcasting” or “backward planning” (cf., Robinson, 2003), which means coming back from a previously defined vision to design and implement actions and strategies in the present.

As exemplary future-oriented approaches for guiding change towards sustainability, these methodological references underline four themes: (a) the importance of the normative nature of future-oriented practices; (b) the challenge of embracing the complexity of the system; (c) the need for a risk-tolerant culture; (d) the necessity and desirability of broad engagement. In this sense, transition management (and similar

approaches) accepts and deals with uncertainty in sustainability efforts in ways that contrast with more traditional future-oriented methods (such as forecasting).

Without being exhaustive, three approaches informed a preliminary “theory of change” for addressing sustainability in the social incubator context at Tec: the Framework for Strategic Sustainable Development, Transitions Management Theory, and the concept of Intervention Research.

The Framework for Strategic Sustainable Development (The Natural Step).

This approach underlines the need to pursue a more strategic and systemic methodology to sustainable development if human enterprises are to incorporate a new outlook to balance environment, economy, and society. Based on the concepts of Karl-Henrik Robèrt and his associates at The Natural Step (described initially in Robèrt et al 2002, 2004), a systemic approach to sustainability in organizations and enterprises was devised as a *Framework for Strategic Sustainable Development* (FSSD). This framework, which includes five strategic levels (system, success, strategy, actions, and tools) can be used to understand and apply sustainability principles within organizations and enterprises.

This approach will be used in the next sections of this dissertation, to (a) consider how businesses might act more strategically to support sustainable development and (b) briefly review the specific case of the Tecnológico de Monterrey, with the intention to assess this institution's achievements and potential as a motor for the sustainable development of Mexico.

The FSSD approach as described in Robèrt et al (2002) considers a systemic approach for businesses that are transitioning towards sustainability. In this sense,

synergies must be found and supported first by understanding the system in which the business (or organization) operates; second, by defining a vision for success (what success “means” within that system); and third, by defining strategies to achieve that vision, embracing diverse actions and tools (eg., life-cycle analysis, cradle-to-cradle, etc.) in a synergistic and complementary manner. In addition, the efforts of different actors need also to be bridged and complemented synergistically to achieve results.

Transitions Management Theory.

As an emergent field of academic research, what has been called sustainability science is a discipline “defined by the problems it addresses rather than by the disciplines it employs” (Clark, 2007). Its objectives, broadly stated, are to harness scientific knowledge to support a transition towards a more sustainable future, to create solutions to environmental, economic, and social problems, and to facilitate the interaction and collaboration between diverse and relevant actors.

More precisely, the design of this project has been inspired philosophically by the *Sustainability Transitions* or *Transitions Management* approach (Loorbach, 2007, 2010). This approach centers on understanding that cities, societies, organizations, and institutions that wish to move towards sustainability should follow a set of steps (not necessarily sequential) to address persistent problems and challenges. These steps emphasize: (1) the collaborative definition of a desirable vision for the future; (2) the characterization of the current state (or “regime”) where any action must take place; (3) the identification of niches or best sustainable practices that deviate from the current state; (4) the proposal of “experiments” or strategic actions that may mobilize the organization towards the vision; (5) the engagement of stakeholders to collaborate and

support the transition; and (6) most importantly, a continuous process of evaluation, learning and adjustment.

With this general philosophy and approach in mind, this study was designed with two major thrusts: first, to provide some insight into the current state of the discourse and practice of the social incubator network at Tecnológico de Monterrey (Chapter 3). Second, to facilitate a transition by means of the reflection on a vision and strategies for sustainability in social business incubation, with specific actions (Chapter 4). The intention is that the sustainability transitions approach in general will provide inspiration for practical applications in the future, with valuable insights and concrete, applicable knowledge and tools for decision makers, officials, and supporters of the network.

Intervention Research.

According to Fraser and Galinsky (2010), social interventions are “purposively implemented change strategies” (p. 459). These can be simple or complex, be developed at the individual, family, group, organizational, community, and social levels. Intervention research is thus “the systematic study of purposive change strategies” (p. 459). It is characterized by the design and development of social interventions, which can be “dynamic” (more dialogical in nature) or “prescriptive” (designed and executed explicitly to guide the exchange between intervention agents and participants).

The research design for this dissertation was inspired, albeit loosely, on the intervention research paradigm and process, with a focus on the more dynamic nature of the methodology. Based also on an ethnographic approach (discussed in the next Section) the role of the researcher in this process was not only to participate as an observant and

documenter of reality, but also to intervene in the process by means of a conference and workshop related to sustainable business (to be described in detail in Chapter 3.)

It is important to note that the social incubator network at Tecnológico de Monterrey is a social intervention strategy in itself, purposefully planned to effect change in the community and in individual citizens. However, it would be a good future research opportunity to apply Fraser and Galinsky's concepts in a more prescriptive manner, to (a) review what is already being done under the light of a formal intervention plan, and (b) plan and execute a designed intervention strategy that allows to document and measure activities and outcomes with more precision and discipline.

Ethnographic Research and Grounded Theory

My analysis of the social incubator at Tecnológico de Monterrey drew on case study methodology, based on qualitative data collected by means of (a) direct observation, (b) documentation review, and (c) semi-structured interviews of key agents in the process. The overall approach was generally based on the *grounded theory* approach, where a systematic process of collecting and analyzing qualitative data allows for the identification of emergent themes that derive in the construction of theories that are "grounded" in the data themselves (Charmaz 2006). Of particular importance in this process was the line by line coding of data, which allowed more focused themes and concepts to emerge into attention.

The case study was based on the personal experience of several entrepreneurs at the social incubator in Guadalajara. Concretely, the case study was intended to be developed as an ethnographic narrative of the experience of these entrepreneurs, based

primarily on the information, assessment, and reflection of key agents in the process (the participants themselves, but also the incubator leadership, staff, and faculty). While space in this dissertation did not permit a narrative description of each case, this ethnographic approach provides rich material for deeper study and reflection on their experiences.

Overall, the ethnographic methodology employed in this case study (to be described in more detail in Chapter 3) has the intention of understanding the experience of the process and of conceptualizing main themes that can further inform and even improve the philosophy and operation of the social incubator under study.

Business Model Design

Developed by Alexander Osterwalder, and later edited in book form as a practical guide for “visionaries, game changers, and challengers” (Osterwalder & Pigneur 2010), the Business Model Generation (BMG) framework has gained worldwide popularity. It is a creative tool to rapidly assess the innovation opportunities of a business at any stage of its development, including those already in operation and those in earlier launching phases. The BMG is already widely used in entrepreneurship training and business incubation, and the social incubator is no exception. It is used as a diagnostic and planning tool to assess both the current state of a business and its prospects. As shown in Figure 3, the BMG centers on the “value proposition” at the core of a business, on the supplier and partner infrastructure and customer dimensions that are implicated in its delivery and success. The model also facilitates the analysis of the cost structure of the business and its revenue streams.

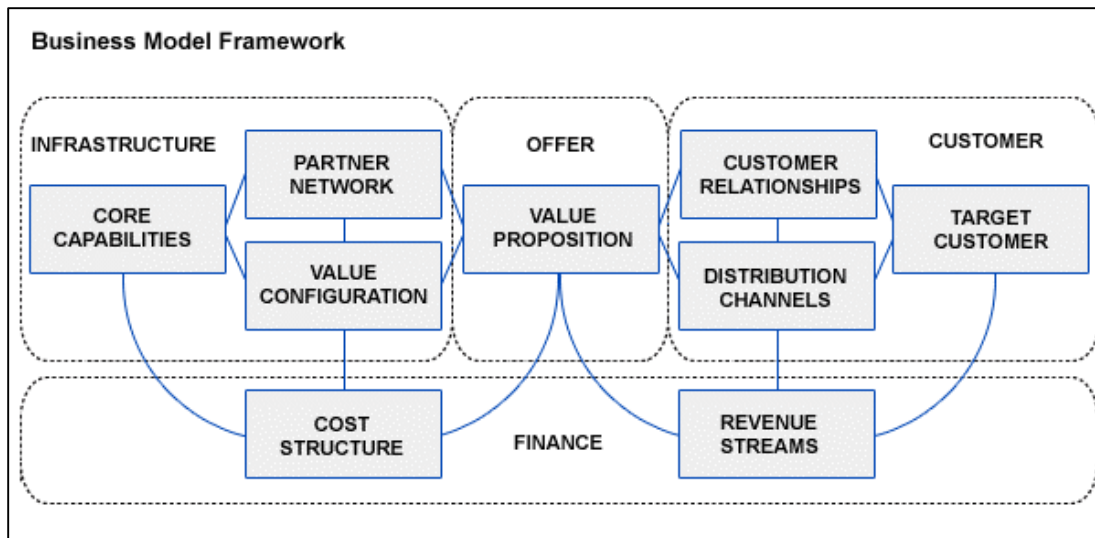


Figure 3. Business Model Generation Template
(Osterwalder & Pigneur, 2010)

The BMG facilitates a visual and creative approach to understanding a business, and lays out very clearly areas where an entrepreneur can find opportunities to innovate (i.e. redefining its value proposition, finding new revenue streams or distribution channels, redefining its partner network, etc). While innovation is the main focus of this tool, it also facilitates the identification of areas of opportunity for incremental or efficiency improvements. However, in the dissertation research the BMG was explored as a possible model not only for identifying opportunities for business improvement and for innovation, but also for exploring the social and environmental impacts of business. These might (and should) enter the picture in a thorough analysis of the impacts of each element of the BMG, where social and environmental costs and benefits should be visualized alongside the traditional, financial cost versus revenue structure (this notion has already been included by Osterwalder in recent revisions of his model, mostly for non-profits and social entrepreneurship ventures).

Substantive and Institutional Background: The Social Incubator

This Section will introduce a general overview of the institution under study and will justify the selection of the case. A very brief and general overview of the current socioeconomic structure and challenges of Mexico will set up the role of Tecnológico de Monterrey as a leading university, with a brief and general overview of its history, structure and 2015 Mission. I will also develop a brief assessment of its pioneering involvement with sustainable development efforts, which include the creation of the Institute for Social Sustainable Development (IDeSS) and the formation of a social incubator network nationwide and in Guadalajara in particular.

A short summary of Tecnológico de Monterrey

Widely regarded as the one of the top higher education institutions in Mexico, the Tecnológico de Monterrey (popularly known as Tec) is perhaps an example of an enterprise that was "built to last" (Collins & Porras 2002). A private, non-profit university with campuses across the country, Tec has clearly maintained a solid set of principles that have guided the evolution of its educational and research mission along its seven decades of existence.

In this process (which has implied a strategic revision of the institutional Mission every 10 years) the Tec has included the concept of sustainability and sustainable development as part of the goals for education, research, and operations. In its most recent definition, the Mission towards 2015 establishes that: "The mission of Tecnológico de Monterrey is to form persons with integrity, ethical standards and a humanistic outlook, who are internationally competitive in their professional fields; at the same time,

they will be good citizens committed to the *economic, political, social and cultural development of their community* and to the *sustainable use of natural resources*.”

(Tecnologico de Monterrey 2006). Thus, through its educational, research and development programs, Tecnologico de Monterrey “prepares students and transfers knowledge to “[...] contribute to the *sustainable development of the community*” and to the “*educational, social, economic, and political improvement*” of Mexico

Complementing its central objective of educating professionals, the Tec has historically focused on the *private domain* of social and economic life, by means of training, consulting, research and innovation, and business incubation for the private sector. This focus has promoted in recent years the development of knowledge-based oriented initiatives, which include a national network of high-tech business incubators and technology parks (Tecnologico de Monterrey 2007).

When a new Mission was established in 2006, the Tec made clear this focus on the private domain, but introduced more clearly the idea of a social responsibility in its concept for the development of the country and its regions. This notion, expressed in one of its Principles, is based on “Freedom of enterprise, market economy and social responsibility”, and is expressed in the following terms: “Given its origins, Tecnologico de Monterrey promotes the entrepreneurial spirit and the creation and development of companies with social responsibility in the context of a market economy” (Tec Mission, Principle 4).

With this concept at hand, in the past decade the university has adopted a broader perspective that tentatively engages the pursuit of private and public challenges, involving more activity in the *public domain* (including training and strategic studies for

public policy and administration). To further pursue a balance between the market economy and social responsibility, the 2015 Mission prompted the 2006 creation of the Institute for Sustainable Social Development (IDeSS), by means of which the Tec has included more broadly the *social domain* in its endeavors (Tecnologico de Monterrey 2006, IDeSS 2008).

Through the IDeSS, Tec has promoted health, education, employment, and entrepreneurial efforts for the community. Over the years, projects have included basic health and nutrition programs, engagement with and training for NGOs, basic education programs for large sectors of the underserved population, and the development of a network of community learning centers and social incubators. These efforts relate as well to the overall educational mission, as they are rooted in the objective of forming students with ethical and social commitment.

Although a detailed description of the concrete actions implemented by the Tec escapes the purpose of this Section, several programs can be highlighted as relevant to the objectives of this research. These include: curriculum development (specific courses and cross-curricular activities in the topic of community development and sustainable development), professional experience and internships, industry partnerships, community and NGO engagement, research in environmental and urban problems, programs to develop and assess citizenship and ethics competencies in students, a prevalent culture of innovation and entrepreneurship, etc.

Most relevant to this discussion is to emphasize that the Mission translates to a double commitment: training students as professionals who are socially aware agents of change and contributing to the sustainable development of the diverse regions of Mexico.

On this basis and in terms of concrete actions in the community, Tec created a number of “transfer centers” for community development. Since 2000, and in collaboration with the Federal Government, Tec opened more than 1,600 web-based Community Learning Centers (CCAs) in underserved urban and rural communities across the country. These centers eventually evolved into the idea for more robust social incubators in selected underserved rural and urban areas.

Sustainability at Tecnológico de Monterrey

At least since 1996, the institutional Mission of Tecnológico de Monterrey has shown a commitment to sustainable development as a relevant issue. This has evolved and translated over the years, but indeed Tec has had a long-standing commitment to sustainability in discourse and practice, in all areas: in teaching, research, and operations (Bremer & López-Franco 2006, Lozano-García et al 2006, Lozano-García et al 2008, Svanström et al 2008) and in community involvement efforts (Tecnológico de Monterrey 2006, IDeSS 2008).

As many of the sustainable activities developed by Tec may amount to the level of actions or tools (based on the FSSD approach, Robèrt et al 2002), Figure 4 shows a tentative framework of how Tec may understand and execute its sustainability initiatives (Wood 2009b). This proposes a view of the *system* as a whole (the role of the university in sustainable development) moving down to a clear and shared definition of *success* (a vision for sustainability principles related to the institutional Mission). This vision can be supported by a number of *strategies* in the private, social, and public domains, and

executed via concrete *actions* in education, research and operation, and by means of specific *tools*.

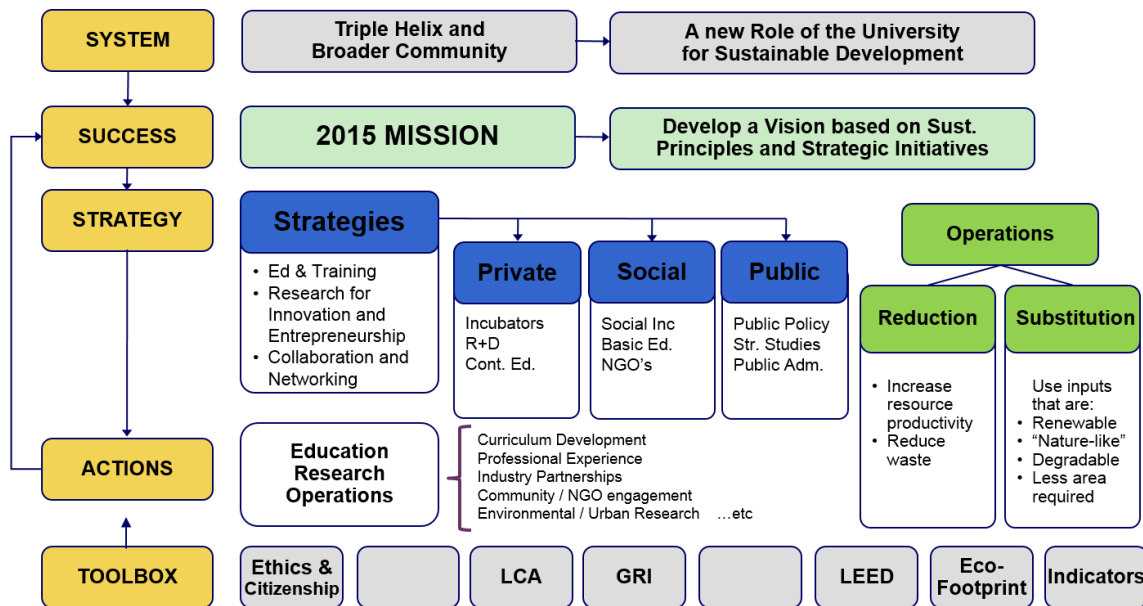


Figure 4. Tentative framework for analyzing sustainability planning and decision-making Tecnológico de Monterrey (Wood, based on Robèrt, et al 2004)

Some of these actions and strategies are already in place. However, these efforts do not translate directly into the practice of creating and/or supporting more sustainable businesses (as will be seen in the presentation of results in Chapter 3). Beyond Tec's expressed case for sustainable development and for corporate community involvement, there is still a need to translate that into its entrepreneurship development programs and its business incubation structure and practice (from high-tech to social incubators). While there is a growing interest on the part of some entrepreneurs to explore sustainable and/or socially-oriented ventures, excepting some relevant cases Tec has been relatively slow to adapt its activities and processes to see this interest as much more than a "niche" of more conscious entrepreneurs. The next step, hopefully, is that this interest will be

institutionally sheltered as a standard practice in its business creation and development efforts (i.e., all Tec entrepreneurs should be “green” and “social”).

The Social Incubator Network

As a social project implemented by a private university, the Tec's social incubator network is a community involvement project in itself. Beyond that, it is a practical, living laboratory for integrating corporate and middle to base of the pyramid initiatives. Thus, there is an opportunity to understand and explore how the support of entrepreneurial efforts can have an impact on the livelihood of underserved members of a community and, through them, on the improvement of its broader social, economic, and environmental conditions.

The history of the social incubator effort reflects Tec's changing perception of its role in the public and social domain of the country. As recently as the year 2000, the Tecnológico de Monterrey System began a program in collaboration with the Federal government to create a series of Community Learning Centers (CCAs), where members of the community could receive training and information. An expert in distance and virtual education since 1989, the Tec System provided high-quality online content that ranged from basic education to entrepreneurial training. The Federal government provided locales, equipment (computers and internet links), and the salary for an educational and technological facilitator. After six years more than 1,600 CCAs had been created across Mexico in both urban and rural impoverished regions and more than 100 in heavily Hispanic regions of the United States. In this first social effort (of course part of the Tec's own social responsibility as a private institution), the major resource flows from

the Tec were the knowledge of its professors (in the form of online course content) and the financial cost inherent in the production, delivery, and instructional support for this content.

By 2006, however, it was clear that only slightly more half of the CCAs were fully operational. This was due, for the most part, to lack of monitoring and compliance on the part of government, which resulted in inadequate provision of technological equipment or human resources. Thus, the IDeSS decided to (1) increase its support of the CCAs in general and (2) "adopt" more closely those CCA's that were relatively closer to a local campus). Soon after, considering that more direct entrepreneurial training could offer the possibility of expanding the livelihood strategies for members of the community, the concept of creating social incubators was born.

Adapting the incubator model from the high-tech and intermediate-technology incubators that had been developed by the Tec System in the previous years, a series of "social" incubators have been rapidly created, with the provision that they were accessible from a local campus, in order to complement the online material with actual presence by Tec students, faculty, and staff. While a few of the 70 incubators currently implemented today are located in a rural area or adjacent to a campus, most have been established in marginalized urban areas separate from but with easy and frequent access from the local campus (cf., Tecnológico de Monterrey 2007).

The 70 incubators have been implemented with great variation, both in terms of physical characteristics and of the actors involved. However, the generic model (Figure 5) holds for most, with the interaction of the following actors:

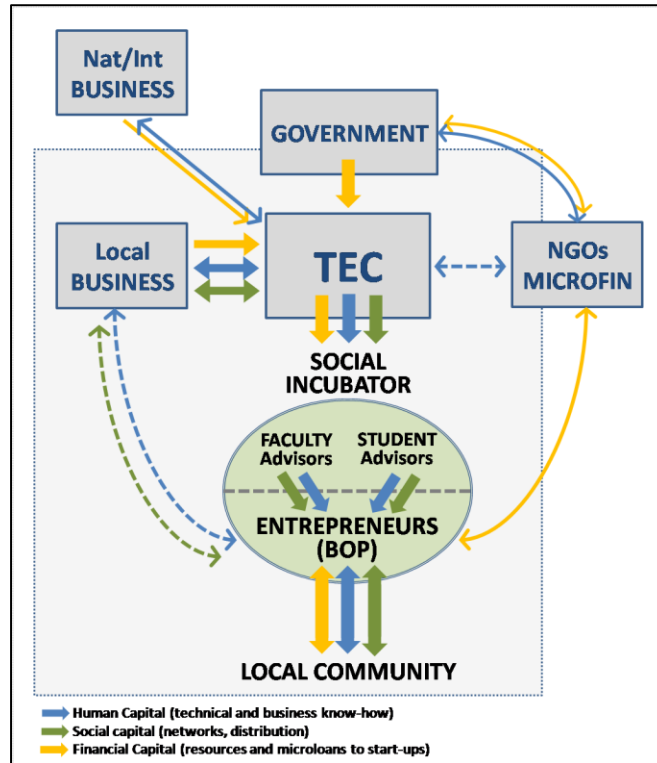


Figure 5. Generic model of actors and interactions in a Tec Social Incubator

(1) MoP and BoP entrepreneurs (individuals and/or families); (2) the extended community; (3) the Tec (Campus and/or System); (4) Tec students (who act as advisors as part of their community service hours and/or because of personal commitment); (5) Tec professors and/or advisors; and (6) local, state or federal government entities. In some cases, social incubators will also imply the participation of (7) micro-finance actors (organizations or enterprises dedicated to provide resources or loans to productive projects), (8) business entities (companies, successful businesspeople or business organizations, mostly local but also national or international), and (9) Non-Governmental organizations (NGOs).

These actors interact in different ways, mostly with the mediation of the Tec but sometimes directly among them. Their interactions, for the purposes of this dissertation,

have been analyzed under the concept of "flows of resources". The sustainable livelihoods model conceives five forms of *capital* that together constitute the livelihood assets of an individual, family or community: human, social, financial, natural, and physical. In an initial assessment of this research, and based on interviews, the most relevant forms of capital that might be impacted by the resource flows from different incubator actors towards entrepreneurs are *human* (experience, abilities, and skills that affect workers' productivity), *social* (interpersonal trust and networks) and *financial* (available monetary funds).

While the two other forms of capital are of course important, especially in rural contexts (in which the sustainable livelihoods approach was first applied), neither appear as particularly relevant in a first analysis. In the case of natural capital, more research needs to be developed to identify its role in the process (which is of course most relevant in terms of sustainability). In the case of physical capital, which includes tools and infrastructure available to the entrepreneur, it is assumed as dependent on the other forms of capital (i.e., assets already belonging to the entrepreneur or new tools and equipment that might be acquired with financial capital provided).

The three forms of capital under consideration (human, social, and financial) are related to the three conditions for creating and maintaining entrepreneurial ecosystems: ideas, support for innovation, and collaboration. Additionally, the social incubator itself can be viewed, under the sustainable livelihoods model, as part of a transformation (of structures and/or processes) and as a form of physical capital that becomes available to a community. As has been mentioned, it can also be viewed as a social intervention in itself, in the terms of Fraser and Galinsky (2010). Finally, it is important to note that, for

the purposes of this dissertation, it is assumed that all three forms of capital analyzed eventually "spill over" to the community, via the entrepreneur and his/her influence and activity. This of course is a major outcome of the social incubator program, and merits more attention and empirical assessment in future research.

It should be emphasized that, in distinction to other "social" incubation and/or innovation efforts (currently sprouting all over the world, cf. Aernoudt 2004), Tec's conception of its Social Incubator frames the concept of social incubation as the transfer of business incubation models to support Middle- and Base-of-the-Pyramid business ventures (Tecnologico de Monterrey, 2007). In this sense, it is a community involvement effort for the institution and for its faculty, students, and staff as individuals. The effort is crucial in meeting the goal of forming "committed professionals" and of promoting the university's role in improving the community.

That being said, it should be mentioned that, while not the object of study in this dissertation, during the past few semesters (since around 2012), several campuses have initiated efforts toward supporting the incubation of social entrepreneurship and/or social impact projects in the community and by their students. One example is Campus Santa Fe's current effort to create a Social Impact Incubator.

The Social Incubator at Campus Guadalajara has focused specifically on MoP (middle-of-the-pyramid) entrepreneurs, based on their potential for growth and job creation. Each semester, incubator staff and participating faculty develop a screening process, whereas interested entrepreneurs are interviewed before the semester starts, in order to assess their goals and expectations regarding the consulting process. This is an initial diagnostic, where entrepreneurs are rejected, accepted, or redirected to other forms

of community support (e.g., courses with basic business content, legal advising office in the incubator, etc.). Entrepreneurs who are accepted are placed in one of two tracks, based on the overall stage of development of their business: (a) Planning of enterprises for social development or (b) Operation of enterprises for social development. These tracks are operated during a semester as curricular courses, so several professors and groups of students serve as advisors (consultants) to entrepreneurs. Students also receive credit for social service hours, which count towards a formal graduation requirement.

In general, entrepreneurs who are incubated in Campus Guadalajara have businesses that are micro-enterprises (less than 10 employees, often self-employed). They must also be formally registered before the Mexican revenue agency (SHCP), to satisfy Tec's stated principles of promoting compliance with the law. There is great variability in the age, industry/sector, and focus of the businesses, and in the characteristics of the entrepreneurs: diverse socio-economic levels (though most are mid- to low- middle class), educational attainment, and work or business experience. Businesses do not have to be new ventures: many have been in existence (some for many years) but need support to get out of risk or stagnation, improve their operation, or innovate.

While the social incubator in Guadalajara has three physical locations to serve a large urban area, the emphasis is never set on the provision of space for the entrepreneurs (other than for the periodical "business club" meetings and sporadic use for courses and/or particular meetings). Rather, the major effort is to support capacity building and networking.

Finally, and reflecting on the case of the social incubator under the focus of social capital, we find a relevant concept, as Putnam (2000) points to two distinct forms of

social capital: *bonding* (or exclusive) and *bridging* (or inclusive), arguing that "some forms of social capital are, by choice or necessity, inward looking and tend to reinforce exclusive identities and homogeneous groups. [...] Other networks are outward looking and encompass people across diverse social cleavages." This last form is "good for undergirding specific reciprocity and mobilizing solidarity" (p.22).

In this sense, it may be more productive to view the social incubator effort (and other organizations that might have the capacity and will to span private and common goals) as a "bridging institution," a locus of collaboration, communication, mediation, and translation. In the future, the social incubator may also better serve the broader, common purposes of sustainable development. Its capacity to avoid limiting itself to being a "bonding" institution, focused solely on the internal goals, perspectives, and interests of participants, opens the promise for engaging and aligning in an active way with shared notions of environmental, social, and economic success. This promise might enhance the possibility of making the bridge between the knowledge-based economies and the community-based approaches.

To date, no previous comprehensive research has been done on the network and on this site (campus Guadalajara). There is a general lack of hard data and analysis, which limits the possibility of learning from experience to improve operation and outcomes (Schramm 2008; London 2009). This research will thus give some support to future understanding of whether this approach is working or not and why. In addition, the originality of this research project centers on the simultaneous study of middle and base of the pyramid and corporate community involvement efforts, whereas previous work has focused on one or the other. Finally, the focus and design of this study will help

understand how a “social incubation” model might better support the shared goals of public and private actors in a community’s path towards sustainable development.

In closing this Section regarding the substantive and institutional background of the dissertation, a few notes on the current state of the social incubation discourse and practice at Campus Guadalajara can be ventured at this point. This is an initial listing of some *barriers* to a transition, which will be further explored and described later:

- There is no formalized, operational concept of sustainable enterprise or corporate community involvement and related concepts.
- The social incubator focuses on economic issues, does not foster or respond well to social and environmental motivations or approaches.
- Despite the institutional Mission, there is no top-down commitment relating overarching sustainability objectives to business incubation.
- There is no model for evaluation of outcomes (for businesses and community in general) and there is no formally defined “theory of change” to support and guide the efforts of the incubator (though some efforts are starting to explore a broader social impact in the Guadalajara region, e.g., community planning and interventions in other marginalized urban areas, such as Juanacatlán and Arenales Tapatíos.)
- In general, the social incubator is capable of adapting rapidly, but it is rather “reactive” in how it currently responds to opportunities and change.

A Model for Sustainable Business: Purpose and Opportunity

In this brief Section, and as a result of the research background, I propose a qualitative model that can be used as a “mapping tool” to identify where an entrepreneur (or established business) currently stands on the Purpose and Opportunity dimensions. Informed by several other sources (most importantly Hart & Milstein 2003; Sabeti 2009; Hart 2010; and Porter & Kramer 2006, 2011), this proposed model derives from the Sustainable Value model of Laszlo (2008) illustrated in Figure 6. This model emphasizes the nature of a company’s purpose, balancing *private* objectives (pure financial benefit for shareholders in one extreme) and *public* concerns (benefit for the social and environmental milieu in which a company must operate, including benefits for relevant stakeholders).

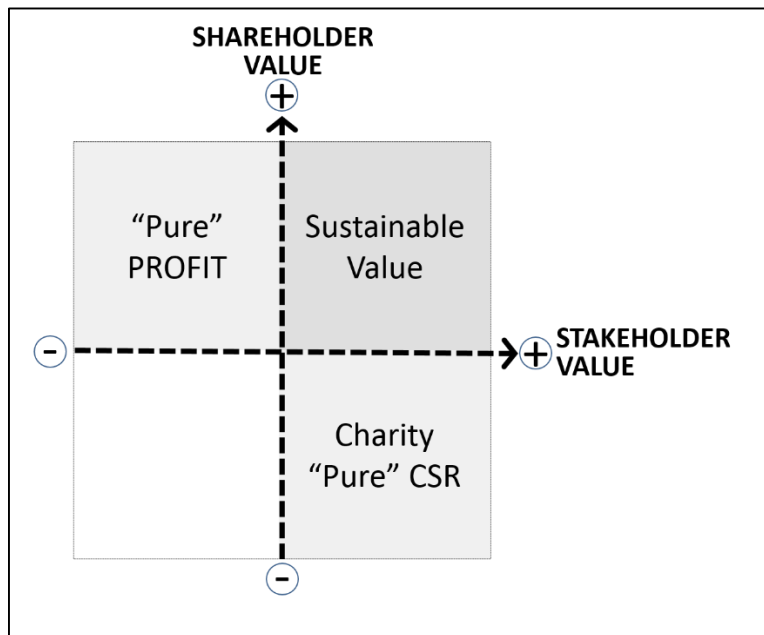


Figure 6. Sustainable Value model (after Laszlo, 2008).

Additionally, several sources (among them Blue Skye 2007, Parrish 2007, Hoffman & Woody 2008) distinguish between different incentives that companies react

to in order to pursue sustainability actions. A first step in this line of action has in many cases focused on niche “green” products or “corporate social responsibility” or “social” actions, often more akin to charity. This is represented in Figure 7, by a product and/or service improvement or innovation approach. In a second step, a business reacts to and manages risk: a company becomes more sustainable for the sake of efficiency and cost reduction, to avoid loss of sales, product substitution, preemptive regulation, reputation damage, fines and penalties (Blue Skye 2007, Laszlo 2008). This is a “bottom-line” approach, which also includes CSR or philanthropy actions, when they are viewed primarily as a benefit to the company (i.e., tax deductions or reputation management). These two first “steps” can imply truly sustainable innovation in products, services, and processes, but in many cases companies merely develop incremental innovation and efficiencies, often focusing on the primacy of their own private benefit or what Dyllick & Hockerts (2002) call eco- and/or socio-efficiency.

Products / Services	Processes	Strategy
<p>“Green” and/or “Social”</p> <p>Niche → Mainstream Profit / Charity</p>	<p>“RISK” Management</p> <p>Bottom Line → Eco-Efficient → Cost Reduction → Philanthropy / CSR</p>	<p>“OPPORTUNITY” Management</p> <p>Top Line / Systemic → Eco/Socio-Effective → Innovation → CCI</p>

Figure 7. Steps in the Approach to Sustainability by Business
[Wood, after Parrish (2007), Hoffman & Woody (2008)]

A third, more complex and promising step confronts and manages business opportunity by means of innovations at the core of the business strategy, where the BMG

of Osterwalder (2010) challenges a rethinking of the essential notion of the *value proposition*. This is a “top-line” approach, where a company aligns its entire strategic outlook with sustainability goals and motivations, in order to achieve not only lower costs, but also more income from new or larger lines of revenue (i.e. the top line), by means of eco- and socio-effectiveness practices and product or service differentiation. This can result in motivated employees, talent attraction, license to operate, new markets and business models and overall enhanced reputation (Blue Skye 2007, Laszlo 2008). This is where true “sustainable value” may be achieved for both private and public benefit, and where sustainable business model innovation may become a reality.

With these two models in mind (Figures 6 and 7), I propose a mapping tool that adds another dimension to the public/private (“purpose”) continuum, and considers on the horizontal axis an “opportunity” scale, that moves from a focus on improvement (i.e., efficiency, risk management) to business approaches centered on innovation (i.e., strategic transformation, opportunity management). This model is shown in Figure 8.

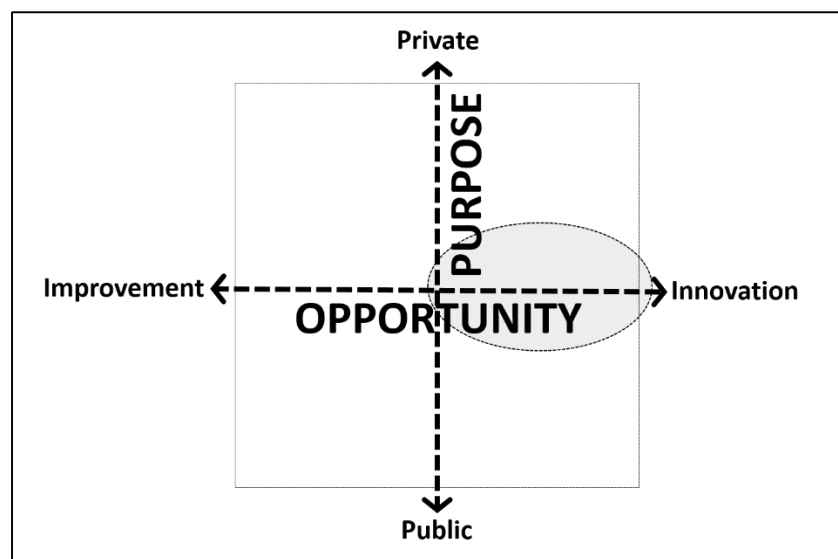


Figure 8. Purpose / Opportunity Model

It is, of course, possible for a company to “improve” or “innovate” in products, services, and processes (operations) or to “innovate” and transform its entire business strategy or value proposition with no regard to sustainability (i.e., the social or environmental impacts of its actions). Indeed, many (if not most) of the world’s businesses still behave in such a fashion. The ideal scenario would be one in which a company considers sustainability as part of its core strategy, and does much more than mere improvements, conducting its capacity for innovation and its value proposition with social and environmental responsibility.

Thus, the proposed model (Figure 8) finds a potentially ideal space of operation for a business, regarding sustainability, where innovation drives its strategic decisions and where the pursuit of private benefit is balanced with positive impact in terms of public (social and/or environmental) benefit. This “ideal” space is represented in the diagram in the shaded oval.

Two important caveats need to be mentioned about this proposed model. The first is that it should be evident that constant innovation is not everything for a company: a focus on operations and on improvements (including efficiency measures and minor innovations at the process, product, or service level) are always necessary to maintain a company’s quality. However, innovation is a major force to maintain the viability of a business, at least from a competitive perspective, as Christensen (1997, 2003) and others have proposed in almost classic references for strategic business thinking (see also Fagerberg 2004).

The second caveat is that innovation is often defined in business literature and practice from an essentially economic and traditional market-oriented point of view. As

an example, in a relatively recent effort to define and measure innovation in the United States, the “Advisory Committee on Measuring Innovation in the 21st Century Economy” (ACMI 2008), proposed a definition of innovation that does not show much promise for a sustainable approach to business: “(Innovation is) the design, invention, development and/or implementation of new or altered products, services, processes, systems, organizational structures, or business models for the purpose of creating new value for customers and financial returns for the firm” (ACMI 2008, p. 3).

While this definition includes a useful view of innovation across the different “steps” outlined above and illustrated in Figure 7, it is challenging to see the absence of a more nuanced approach to other *measures of success* for innovation in business, beyond “new value” for customers and “financial returns” for firms. Nevertheless, some companies have begun including other forms of valuing and responding to what is relevant for their customers, employees, shareholders, and external stakeholders, and that is the path that the proposed model suggests (this includes the current efforts to assign monetary value to a firm’s *natural* capital.)

In other words, the proposal of the improvement-innovation axis in this dissertation directs attention to considering innovation as a force for finding sustainable value opportunities for a firm and for its constituents, by means of incorporating social and environmental issues and considerations in the strategic definition of its value proposition and its structure. This is not an easy task, as will become evident in the next Chapter, through the description of the current-state operation of the Social Incubator and of the specific cases of entrepreneurs who are struggling to make their businesses economically viable.

As a contribution of this dissertation, this model is proposed as a means to qualitatively weigh where a business or venture *currently* stands on the Private / Public axis (Purpose) and the Improvement / Innovation axis (Opportunity). While more quantitative measures can and should be explored, in the results section I will test this map using a simple, qualitative scale to place the social incubator entrepreneurs that I studied along these two dimensions. For the purposes of this analysis, the fact that an entrepreneur is placed on the “opportunity” scale in a position of “innovation” does not mean necessarily that she or he is innovating with sustainability in mind, but that her or his attitude and actions *at the current state* show a capacity for innovation, which in the future may be harnessed with sustainability objectives in mind.

Thus, this mapping exercise does not imply that one quadrant or position is by necessity better than the other. It is an exercise that points to the relative position of an entrepreneur along these notions and to the direction that her or his possible actions might take in order to move to a potentially more fruitful position of disruptive, sustainable innovation and of a more balanced pursuit of private benefit with public value.

In conclusion: is there an argument for a transition in the social business incubation process at Campus Guadalajara? Does it make sense within the current social incubator objective and focus? These are the ideas that guided the general research question of this dissertation and a set of specific questions and expectations that guided its design and execution. This will be discussed in detail in the following Chapter, which explains the current state assessment developed for this study.

CHAPTER 3

CURRENT STATE ASSESSMENT: THE CASE STUDY

This Chapter addresses what I found during the course of dissertation research, and thus provides a picture of what is currently happening in the social incubator process at Campus Guadalajara. It presents, first, the approach to research and, second, the overall findings regarding the current state analysis performed, from the perspective of participating entrepreneurs. In the following pages I will describe the general approach to research, including preliminary work done prior to the start of my dissertation and the specific methods and process developed to acquire and analyze the information during the study period. In the results section, I will present the general findings from the research process, and will discuss them under three themes, as they relate to the research question and expectations.

Approach to Research: Research Design and Methodology

In this Section, I will describe the research process that led to this dissertation and the methods and tools that were selected. Prior to the dissertation work itself, I developed an initial and deeper understanding of Tecnológico de Monterrey's social incubator network, as part of my academic coursework and by means of preliminary field work at several incubators in four Mexican cities. I discuss this work in the first part of this Section, and explain how it allowed me to better understand the dynamics at work and to focus my dissertation research proposal. In the second part of this Section, I will describe in detail the research process followed once that I selected a site to study and I developed a specific research question, expectations, and protocol.

Preliminary Research Work

The research behind this dissertation was inspired by my professional experience at the Tecnológico de Monterrey. There, I participated in the development of entrepreneurship and regional development programs and projects, which included the initial creation of a social incubator in the city of Leon (November 2007). In that capacity, I witnessed the potential of entrepreneurship not only as tool for economic development, but also as a possible arena for introducing sustainability concepts and goals to the practice of business and to the community.

As has been mentioned in Chapter 2, at that time the approach to sustainable social development, as promoted by the IDeSS, centered on creating “social incubators” as a form of “enhanced” Community Learning Center (CCA). In that sense, instructional content would be provided by means of Tec’s online material via its CCA online platform, but with the added benefit of in-person support from Campus students and faculty (cf. Tecnológico de Monterrey, 2007 and IDeSS, 2008). In addition, an entrepreneur advising program was instituted, by means of which MoP and BoP entrepreneurs from the community would be advised by teams of campus faculty and students, with diverse models adapted by each campus based on their unique objectives and capacities (among other aspects).

While the original intent of the “social incubation” process was to be centered on the low-income (or BoP) population, it was soon evident that demand was greater from people who had access to a somewhat higher level of resources, in terms of both human capital (education, professional capacities and experience) and financial capital (relatively more available income than poorer sectors of the community, having met most

basic needs). Thus, many incubators decided that results would be more effective in their entrepreneur support activities if the effort was geared toward middle-income (or MoP) individuals. According to my conversations with staff and participants, it was also deemed that there was a better opportunity to promote regional growth if the work centered on entrepreneurs that had more potential to be successful and create more jobs. Support programs for BoP or in-poverty population were not considered necessarily in the focus of Tec activity, save via CCA content, Tec's own corporate responsibility programs, and/or student-led charity or philanthropy work.

Later, as a PhD student at ASU, I focused my research towards sustainable entrepreneurship and innovation, distinctly concerned with understanding how this may impact the most underserved sectors of a region's population. Concretely, during the spring 2010 semester for the "Institutions" course (ESS-513) I worked on a paper that used the social incubator effort at Tecnologico de Monterrey as its subject. The resulting study, "An Exploration of a Social Entrepreneurship Ecosystem in Mexico" (Wood 2010), represents a first, tentative "institutional analysis" of the social incubator network, focusing on three campuses (Leon, Guadalajara, and Hermosillo). This project allowed me to focus on: (1) understanding and application of the language of institutional analysis for this setting (e.g., actors, resources, objectives, motivations and incentives, etc.) and (2) understanding of the general structure, funding, and operation of the different incubators, as well as differences in how each of the campuses approached the task of setting up and operating their social incubator(s).

I developed an on-line questionnaire that the Director General of each campus answered, and that allowed me to identify similarities and differences in terms of issues,

structure, funding, type of population served, etc. The questionnaire focused generally on gaining more insight on the origin and operation of the SI model and its application: (a) the overall structure of the selected social incubators (in terms of actors involved), and (b) the types of resources provided by each category of actor at the origin and/or in the operation of the incubator. In line with other research questions that were considered initially, the questionnaire explored other issues that informed the design of my research, including: (c) the criteria for selecting an entrepreneur as a participant, (d) a qualitative assessment of the motivations of the actors in participating (including entrepreneurs, advisors, and mentors), (e) a qualitative assessment of the organizational results of the social incubators; and (f) opinion about the challenges facing the incubators, including issues related to evaluating and monitoring the outcomes. The main findings of the study emphasized the relevance of *actor interactions* (i.e., the activities and connections between the different participants in the process, including entrepreneurs, faculty and student advisors, staff, external actors, etc.) and *resource flows*, where it was found that there is mainly exchange of three forms of capital: human (knowledge/ideas and capacities), social (interaction with other actors and opportunities and links for mentoring or financing), and financial (in some cases, access to external funds).

On the basis of this initial exploration and its findings, during the summer of 2010 I engaged in preliminary field work in four Mexican cities, in which I visited the social incubators managed by the following campuses: Hermosillo, Guadalajara, León, and Monterrey. To obtain direct contacts and additional information, I visited each of the campuses and the incubators, which are all located off-campus in middle- to low-income areas of each city. There I interviewed both users and staff and observed diverse activities

and operations. This allowed me to further understand the general structure, operation, and regional differences.

The sample was chosen at that time for: (a) my previous knowledge and experience of each city in question, (b) convenience and access to information, and (c) potential for contrast in contextual characteristics (size of the city, type of industries, social, environmental, and economical challenges, etc.). Though in the end my research did not focus on this final aspect, it seems that there is potential for future research regarding the relevance of local socio-economic and cultural characteristics. In other words, if there is any influence in the incubator activities and outcomes depending on the types of local industries, business, amenities, and livelihood opportunities, as well as general socioeconomic, cultural, educational, conditions across each city.

The main learning outcome of this preliminary research can be summarized in five broad themes. The first is that though initially defined by the same objectives and general model (cf. Figure 5), the way a social incubator was established in each of the four cities showed a degree of variability, including location; types and roles of actors; whether the focus was on serving the BoP or MoP population (or combinations of them), etc.

The second learning outcome of the preliminary research is that based on identified interactions, there was some evidence of the participation of business entities (individual businesspeople or business organizations) in a mentoring role, which directed my initial research interest in understanding the potential of that participation in improving entrepreneur outcomes. However, during actual dissertation research, this was

not evident as a regular practice at the selected site, save more open interactions (e.g., conferences and workshops by business experts and advisors).

Thirdly, this preliminary research allowed me to understand that there was not a general, shared plan in the mission and activities of IDeSS. I witnessed a lack of a theoretical or conceptual base for it and for Tec's general role in social development (i.e., a defined and coherent "philosophy" or "theory of change", beyond Tec's belief in the primacy of free enterprise, with social responsibility, as a motor for the development of the country (cf. Tec's Principles, discussed in Chapter 2).

A fourth outcome was that there was a need for better measures and follow-up of the activities of the incubator, particularly once the work with the diverse types of participants ended (e.g., individual success rate and indicators for participating enterprises, overall social and economic impact in the community, etc.).

Finally, preliminary research showed that while there was an almost complete absence of sustainable value objectives in the efforts and objectives of each social incubator, once the topic was discussed with staff there was both interest and some discussion about entrepreneurs that may have potential and/or interest in engaging in products, processes, and strategies more aligned with sustainable principles and objectives. This focused my interest in exploring this further, particularly from the perspective of a research process informed by intervention and future-oriented perspectives for sustainability research (Robèrt et al 2002; Robinson 2003; Fraser & Galinsky 2010; and Wiek et al 2007).

In conclusion, this preliminary experience and research work allowed me to identify these five general lessons in order to decide the initial focus of a proposal for my

dissertation during the fall of 2010. On this basis, the following decisions were made: (1) Center the project in Campus Guadalajara; (2) Because I had witnessed some efforts in other campuses and social incubators (including Leon) of recruiting the active support of established business entities (businesspeople, companies, and/or business organizations) as mentors, my initial focus pretended to analyze this and center the research question on the possible benefit, regarding sustainable value, that this might bring to entrepreneur outcomes; and (3) Structure the dissertation plan to develop research at a distance during a spring semester (JM/2011) and locally (on site) during a summer and a fall semester (AD/2011).

The decision to center the dissertation project on the Campus Guadalajara case was made for three main reasons: (1) the fact that this campus had succeeded in installing, with in-kind financial participation from both private and public entities, three off-campus social incubator locations in different parts of the city, which allowed for a broader presence in the community (albeit in a large metropolitan region); (2) although evaluated qualitatively, there was evidence of a better effort of coordination between the local IDeSS and the academia in Campus Guadalajara, whereas a concern in the other three campuses was that the effort was led by IDeSS with some resistance to participate from academia; and (3) the convenience of counting with contacts, facilities, and other forms of support provided by Tec, as well as the personal facility to establish a base over the summer and part of the fall of 2011 to conduct research at the site.

As to my second decision, during the distance phase of the research I found some evidence of mentor participation in the Campus Guadalajara social incubator effort. Based on the initial assessment, it was possible to identify some evidence of the

interaction of established business entities in direct support of entrepreneurs. However, once field work began in the social incubator at Campus Guadalajara, it was found that evidence of direct mentoring was scarce, beyond the practice of two types of sharing experiences: (a) participation of entrepreneurs in facilitated collective networking sessions (roundtables or dialogues) with their peers (called “Business Club” sessions) and (b) conferences or talks by experienced businesspersons and/or business advisors to groups of entrepreneurs. In addition, as mentioned before, I also found during initial research that Campus Guadalajara (and Tec in general) has changed its initial focus on base of the pyramid needs to address the reality and growth potential of entrepreneurs who are located in middle-income sectors.

Nevertheless, the adaptation of my research focus and process was beneficial, since it allowed me to explore with more clarity beyond the “business” nature of my dissertation, focusing more on what gave this a sustainability perspective to the practice of business and business incubation.

Finally, regarding the final research decision mentioned above, and though I refocused the main research question after the analysis of JM/2011 entrepreneurs, I was able to adapt activities during the summer and prepare corrections to surveys and interviews, in order to better capture the new focus.

Research Design and Methodology

In this Section, I will briefly explain the selection and design of research methods and tools, which allowed for the collection of rich data and prefigured the results that will be explained later in the second part of this Chapter.

To explore the overarching research question of why and how business incubation processes may foster sustainable enterprises at the middle and base of the socioeconomic pyramid (MoP/BoP), I developed a current state assessment of the social incubator at Campus Guadalajara, observing and analyzing during two semesters its processes and the activities of incubated entrepreneurs, as well as their goals, motivations, and outcomes. The general expectation at the outset of the study was that Tec's social business incubation process, in both its design and implementation, focuses on the economic outcomes of incubated projects and hence does not promote entrepreneur commitment to sustainability goals and practices. As mentioned earlier, the general research question was supported by three main hypothesis, each of which will be addressed with its results later in this Chapter.

Sample and method selection.

During the January-May 2011 semester (henceforth JM/2011), the social incubator served a total of 14 entrepreneurs, of which 9 participated actively in meetings and periodic activities (cf. Table 1). I was able to implement an end-of the semester survey about their experience (at a closing event for the semester, on May 11, 2011). I also developed in-depth interviews of 8 of the entrepreneurs, between July 26 and August 3, 2011. This allowed me to see the need to adapt my research questions, to test my research design, and to improve and give more focus to the surveys and interview guides. Findings were relevant and very useful, both in general as a group and in each case: some of the insights and results for these cases were illuminating and can be referenced and used as examples and evidence.

Table 1. Spring JM/2011, Directory of Entrepreneurs

Entrepreneur Code	Type of Business	Survey	Level of Contact
Entrepreneur 1	Arts and Crafts (design and production)	Y	Interview
Entrepreneur 2	Natural health and beauty products	Y	Interview
Entrepreneur 3	Restaurant (Tacos)	Y	Interview
Entrepreneur 4	Natural health and beauty products	Y	Interview
Entrepreneur 5	Health awareness (non-profit)	Y	Interview
Entrepreneur 6	Pets and Fish store	Y	Interview
Entrepreneur 7	Plastic packaging	Y	Interview
Entrepreneur 8	Special education school / support	Y	Interview
Entrepreneur 9	Healthy food products	Y	No Interview
Entrepreneur 10	Medical Lab	N	None
Entrepreneur 11	Fruit commercialization	N	None
Entrepreneur 12	Medical La	N	None
Entrepreneur 13	Construction	N	None
Entrepreneur 14	[???	N	None

That being said, the case study focuses on the in-depth field work that I was able to develop with entrepreneurs who participated in the social incubator during the August-December semester (henceforth AD/2011). With this group of entrepreneurs, I was able to develop a more intense interaction from the outset of the semester (including, in two cases, as observant in their initial selection interviews with advisors) and to develop participant observation in many of their meetings and activities. During this academic period, the social incubator served a total of 15 entrepreneurs, of which 12 participated actively in meetings and periodic activities (cf. Table 2). I surveyed, observed, and interacted with all 12, and 10 agreed to in-depth interviews, which were conducted between September 21 and October 5.

Table 2. Fall AD/2011, Directory of Entrepreneurs

Entrepreneur Code	Type of Business	Survey	Level of Contact
Entrepreneur A	Eatery (permanent food stand)	Y	Interview
Entrepreneur B	Popsicles	Y	Interview
Entrepreneur C	Medical and orthopaedic products	Y	Interview
Entrepreneur D	Soccer school (non-profit)	Y	Interview
Entrepreneur E	Photography Studio	Y	Interview
Entrepreneur F	Groceries (Alcalde Market)	Y	Interview
Entrepreneur G	Local courier company	Y	Interview
Entrepreneur H	Product recycling and education	Y	Interview
Entrepreneur I	Arts and Crafts (traditional Wirarika)	Y	Interview
Entrepreneur J	Wood Furniture	Y	Interview
Entrepreneur K	Shoestore	Y	No Interview
Entrepreneur L	Arts workshop for children	Y	No Interview
Entrepreneur M	Civil protection and security	N	None
Entrepreneur N	[??]	N	None
Entrepreneur O	[??]	N	None

In addition, I worked with the incubator leadership to implement two interventions during the process. The first followed their scheme of initiating the semester with a conference by an established business person, as a role model of successful implementation and business capacity. With this, we were able to invite a successful young entrepreneur in the field of sustainable retail (Eugenio Galindo of *EcoTienda*) to introduce environmental and social issues and how they affect business. The second intervention took the form of a workshop on sustainable business visioning and strategy, presented by this researcher at the middle of the semester (again following their usual convention of having a hands-on workshop midway through the consulting process). Please refer to Figure 9 for a graphic representation of the full list of research activities developed during the semester, which are also listed and explained below.

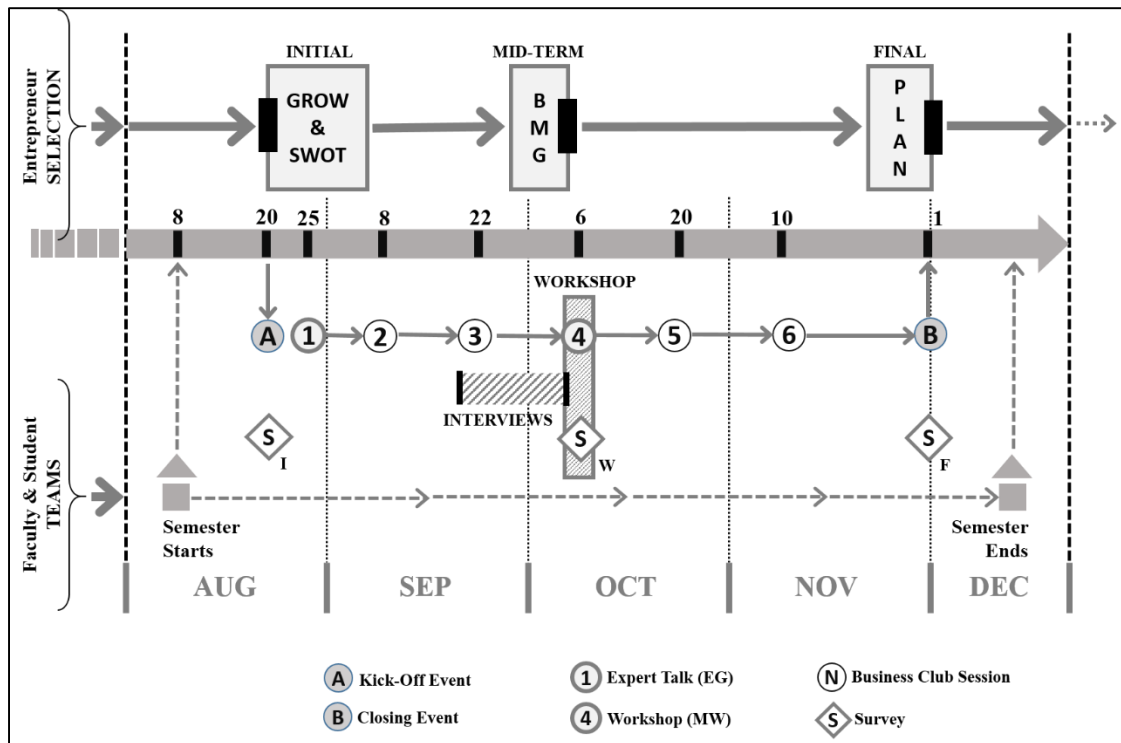


Figure 9. Social Incubator and Research Activities Developed AD/2011

The general approach of the case study followed general guidelines regarding case study research (e.g., Scholz & Tietje 2002; Hancock & Algozzine 2006, Yin 2009). It involved a qualitative, in-depth ethnographic study of participants, working with the entrepreneurs (and their advisors and incubator staff) to understand their goals, motivations, and outcomes. The approach was based on ethnographic and qualitative methods described by authors such as Schensul et al (1999), Bernard (2006) and Charmaz (2006). The development of the study centered on four concrete research tasks: (1) Study of the origin, operation, and outcomes of the social incubator; (2) Documentation & Analysis of the experience of entrepreneurs (and their advisors) in the incubation process; (3) Assessment of specific research questions regarding the pertinence of incorporating the concept of sustainable entrepreneurship in relation to: (a) Entrepreneur Objectives

and Motivations (Knowledge and Capacity building, Economic Viability, Attitude and Motivations), (b) Opportunities in Sustainable Value (role of social and environmental motivations in business potential), and (c) Role of Social Networks and of broader support structures; and finally (4) Discussion of a vision and strategies for a sustainable-value approach to future work in this and other social incubator networks (which will be addressed in Chapter 4).

Data were collected by means of the following research methods: (a) archival and documentary review (to understand institutional documents, social incubator operation, history, previous experiences, etc.); (b) participant observation (used throughout the AD/2011 semester, engaged as an observant in semester launch and closing, all Business Club sessions, two screening meetings, relevant logistical meetings by staff, and workshops and conferences); (c) pre- and post-surveys of participants (MoP/BoP entrepreneurs and advisors/mentors), and (d) semi-structured interviews of participants. Qualitative results were assessed using the grounded theory approach (Charmaz, 2006). Each method relates to the research questions as shown in the following lines:

(1) Specific Research Questions: Entrepreneur Attitudes, Goals, and Motivations

What are BoP / MoP entrepreneurs looking for in the Social Incubator? What may be some of their personal attitudes, goals (objectives, expectations), and motivations that move them to engage with the social incubator? What is the Social Incubator's approach to attracting, screening, and selecting entrepreneurs? Are entrepreneur attitudes, goals, and motivations aligned with the Social Incubator's approach to attracting, screening, and selecting entrepreneurs?

Expectations: Entrepreneur goals and motivations are focused on economic outcomes and on the short-term economic results of their business. The Social Incubator responds to this as the main focus of their discourse and process.

Methods Used: Pre- and post-surveys of participants (MoP/BoP entrepreneurs), and semi-structured interviews of participants. Surveys included questions regarding satisfaction with the incubation process, feedback, attitude, goals, motivations, resources used, expected (pre-) and delivered (post-) results, etc.

(2) Specific Research Questions: Opportunities in Sustainable Value

Do MoP / BoP entrepreneurs engage at all the “Case for Sustainability in Business” and, if they do, in what terms? Does the Social Incubator include in some form this concept in the discourse and practice of business incubation and consulting (capacity building and/or collaboration or networking)? Is the Social Incubator in Campus Guadalajara responding in any way to the challenge of incorporating sustainable development concerns in business incubation?

Expectation: Because of economic constraints, MoP / BoP entrepreneurs do not consider social and/or environmental issues and the social incubator does not promote them in an explicit manner. In general, the social incubator does not engage sustainability in its business training and incubation processes.

Methods Used: Pre- and post-surveys of participants (MoP/BoP entrepreneurs), semi-structured interviews of participants; and “Sustainable Enterprise Visioning & Strategy” Workshop discussion and survey.

(3) Specific Research Questions: Role of Social Networks and Broader Support

What might be a role for social networks and the presence of mentors and other contacts in the Social Incubator process? May this provide opportunities to engage the Case for Sustainability in Business?

Expectation: Under normal operation, topics related to sustainability may appear in interaction with other actors, but there is no formal “plan” behind this in the discourse and practice of this social incubator.

Methods Used: Pre- and post-surveys of participants (MoP/BoP entrepreneurs), semi-structured interviews of participants.

As has been mentioned, the general research question of the dissertation translates into a specific fourth research question, which informed the whole research process but is in fact addressed broadly in the discussion and intervention proposal in Chapter 4.

Data Analysis.

For each of the four methods that were used to collect data, I conducted the following analyses:

(1) Archival and documentary review: basic registration of existing information.

(2) Participant observation: registration of comments, attitudes, questions, etc.

(3) Surveys: results from the Pre- and Post-incubation surveys were recorded and analyzed to document and assess codes and patterns in the information obtained. Though in small numbers related to a particular group of entrepreneurs, the surveys provided some quantitative data and impacted the assessment of all the specific research questions, and more so in the Post-incubation analysis. In the case of open/qualitative questions (which were included in some instances, especially in questions that gauged concrete

aspects of value-related motivations, outcomes, attitudes, etc.) responses were coded and compared in parallel to coding derived from the open interviews (see below).

(4) Semi-structured interviews: results from the semi-structured interviews (developed during the incubation process) were electronically recorded and analyzed with input from the grounded theory approach, coding and analyzing the rich, text-based responses. Interviews provided most of the richest, qualitative information, and impacted the assessment of all specific research questions, most notably in the Post-incubation analysis. Interview results were essential to understand in more detail the presence of “sustainable-value” motivations and possible outcomes, and they also had a major role in assessing overall attitudes, satisfaction, goals, and motivations.

It should be noted also that two graphic exercises were conducted during the interviews and the Workshop (see Figures 10 and 11). Though results were only preliminary, these exercises tentatively tested tools to visually consider motivations regarding sustainability and potential visions and strategies for individual entrepreneurs. I consider that, due to the variability in educational levels and familiarity with business and conceptual themes, which may be expected to be lower in MoP/BoP entrepreneurs, it seems worthwhile to pursue this avenue of research in the future.

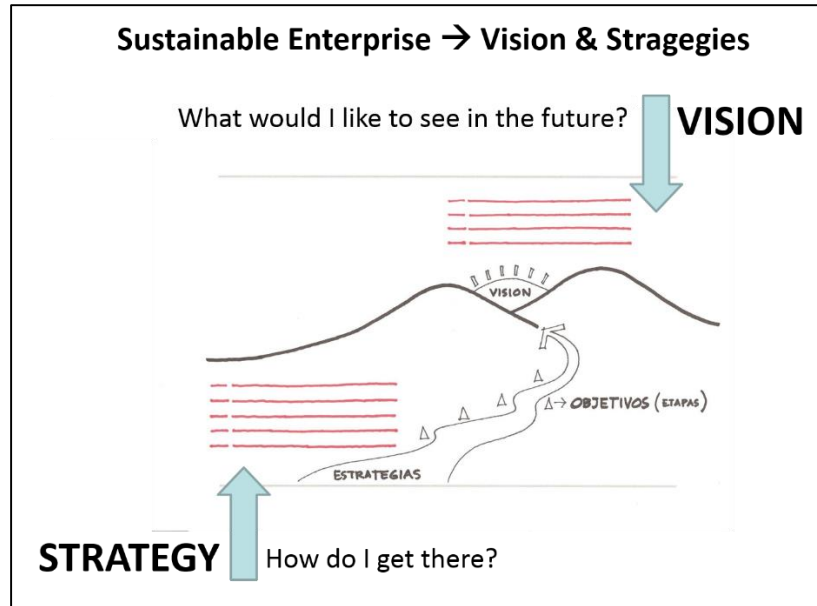


Figure 10. Vision and Strategy Exercise for Entrepreneurs

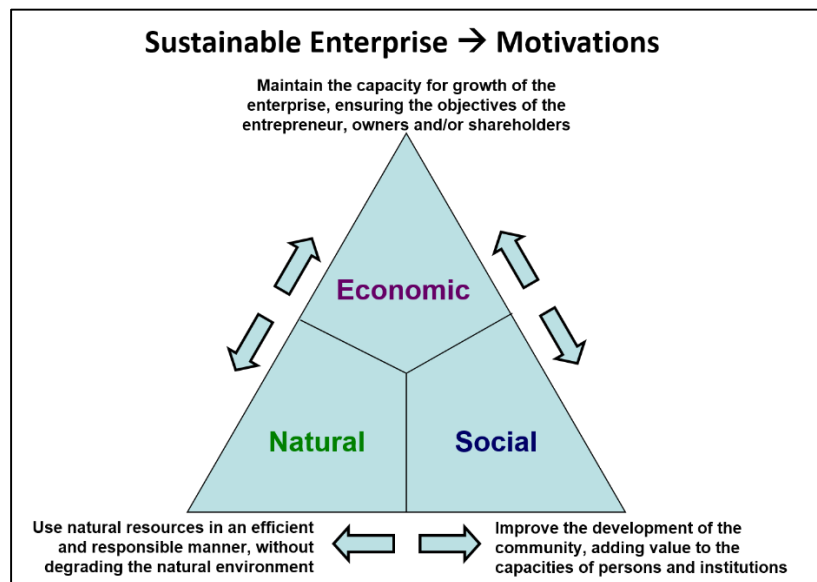


Figure 11. Motivations Exercise for Entrepreneurs

Finally, it is important to note that the qualitative assessment of interview results constitutes excellent material for strong, in-depth case studies (cf., Yin, 2009). Though the final results documented in this dissertation show more general trends, it is possible to continue in the future with a more detailed description of each of the entrepreneur cases

under study, to analyze their unique challenges, motivations, opportunities, and successes and how a social incubation effort may better serve their needs.

Summary of Research Activities at Study Site.

During the proposed on-site research period, from May to December 2011, I realized three site visits (May, June-October, and December) to conduct on-site research, by means of the methods described above. This included interaction with social incubator participants (entrepreneurs, professors, incubator leadership and staff, and students) and document collection and revision. Specifically, the following activities were developed:

MAY 2011

(1) Pilot survey for spring 2011 participants (POST) to test questions and analyze results and outcomes of that group. Deployed during the semester closing event (May 11th, closing session of social incubator activities for that semester).

(2) Interviews with social incubator coordinator and other leaders of the local IDeSS, all six participating faculty advisors.

JUNE-AUGUST 2011

(3) Participated (as observant) in the first full-day session of a week-long business mentor training workshop, conducted by entrepreneur and consultant Guillermo Levinton and taken by faculty from several Tec campuses who are participating in the social incubator effort and other entrepreneurship training (July 4, 2011).

(4) Pilot semi-structured interviews with spring 2011 participants (to document experience, expectations, outcomes, etc.). This resulted in recorded interviews of eight participants (entrepreneurs) and interviews of five other key players (the coordinator of

the Social Incubator effort, business professors and the Campus community involvement director). These interviews were conducted between July 26 and August 3, 2011.

(5) Documented data and material from previous semesters (types of enterprise, employees, types of outcomes recorded, institutional documents, information regarding SI operation, history, and previous experiences, etc.).

(6) Participated as observant in selection of fall 2011 participants (late July): I participated in two interviews of entrepreneurs who were being evaluated for participation in the fall, to understand process and criteria used to do this. A total of 15 entrepreneurs were finally selected to participate in the fall 2011 semester.

(7) Before the semester started, and with incubator leadership approval and participation, I located, interviewed, and selected a local business person for participation during the fall 2011: Eugenio Galindo, the owner of a small, sustainable retail business (*EcoTienda*) was recruited for a conference session with participating entrepreneurs during the fall (Aug. 25th, see below). This conference, held at the beginning of the semester in the first Business Club meeting, is part of the normal operating procedure of the social incubator.

AUGUST-OCTOBER 2011

(8) As part of the normal social incubator process, other advisors participated with talks or workshops on different business topics, during the semester (at the Business Club sessions). These were selected by the social incubator coordinator. I participated as observer in three of the four sessions held during AD/2011.

(9) Deployed surveys of participants during Fall 2011 (PRE-POST) and Workshops.

(10) Participated in the following work sessions and/or workshops (as participant observer):

- (a) Aug. 20: Semester Launch for fall entrepreneurs. Deployed initial surveys.
- (b) Aug. 25: Sustainable Entrepreneur Workshop (*EcoTienda*, co-owned and operated by a former Tec Student, Eugenio Galindo).
- (c) Sep. 8 and 22: Participant observation in Entrepreneur meetings (during Business Club sessions).

(11) Semi-structured interviews with fall 2011 participants (to document experience, expectations, outcomes, etc.). This resulted in recorded interviews of ten participants (entrepreneurs) and three faculty advisors. Interviews were conducted between September 14 and October 5.

(12) I conducted a “Sustainable Enterprise Visioning & Strategy” Workshop (October 6, 2011) to present fundamental concepts of sustainability in business. Workshop included the participation of all 10 participating entrepreneurs and all social incubator staff (SI coordinator, all four faculty advisors, and support staff). Initial ideas by participants for sustainable visions and strategies for their own enterprises were collected, and a short survey was administered at the end of the workshop.

(13) As I returned to Arizona to continue this and other work, I did not participate in person at the Club de Negocios sessions of Oct.20 and Nov 10, but I followed up with staff regarding content, comments, and results of each.

DECEMBER 2011

(14) Participated as observer in final closing session of semester (Dec. 1st), where I deployed the final surveys (POST).

Addressing the Case for Sustainability in Business Incubation:

Results and Analysis

In this Section, I will present and reflect on the general findings from the research process, including general results regarding the participation of entrepreneurs who were studied and overall learning outcomes from the research process. I will address and discuss in depth these and other major findings under three themes, each of which relates to one of the specific research questions and its expectations.

As has been mentioned, I interacted actively with ten entrepreneurs during the AD/2011 semester. Their information, via surveys, observation workshop participation, and interviews, form the core of the results of this study. Each case could be developed independently as a case study, with rich, narrative descriptions of their process, motivations, and outcomes. The nature of this report is more succinct, and will only outline the initial results from my interaction with them. Please refer to Table 3 for a summary of the participation of each during the semester activities.

Table 3. Fall AD/2011, Participation of Entrepreneurs

ID Code	Type of Business	Business Club Meetings								INTERVIEW DATE/ TIME
		20-Aug-11	8/25/2011 Conference	8-Sep-11	22-Sep-11	10/6/2011 Workshop	20-Oct-11	10-Nov-11	1-Dec-11	
Entrepreneur A	Eatery (permanent food stand)	+		+	+	+	+		+	6 21Sep/11.30am
Entrepreneur B	Popsicles	+	+	+	+	+	+	+	+	8 22Sep/06.00pm
Entrepreneur C	Medical and orthopaedic products	+	+		+	+		+	+	6 28Sep/04.00pm
Entrepreneur D	Social Soccer initiative (non-profit)	+	+			+				3 29Sep/01.00pm
Entrepreneur E	Photography Studio	+	+	+	+	+	+	+		7 29Sep/04.00pm
Entrepreneur F	Groceries (Alcalde Market)	+	+	+	+	+		+	+	7 05Oct/07.00pm
Entrepreneur G	Local courier company	+	+	+		+	+	+	+	7 03Oct/10.30am
Entrepreneur H	Product recycling and education	+	+		+	+				4 30Sep/10.30am
Entrepreneur I	Arts and Crafts (Wirarika)	+	+	+		+		+	+	6 30Sep/04.30pm
Entrepreneur J	Wood Furniture	+	+	+	+	+	+	+		7 03Oct/02.00pm
		10	9	7	7	10	5	7	6	

As it is possible to see from the list of participating entrepreneurs, their sectors and activities are quite varied. A few are involved in service-type businesses, including

food preparation: Entrepreneur A was a young upper-middle class woman who owned an eatery (permanent food stand) and Entrepreneur B was a mother of three who supplemented her family income by preparing and selling ice popsicles.

Others were focused on provision of diverse services, including a store focused on medical and orthopaedic products (Entrepreneur C), a photography studio (Entrepreneur E), and a local, micro-courier company (Entrepreneur G). Particular mention should be made of Entrepreneur(s) F, who were a brother and sister (professionally educated) who had recently inherited a grocery stand in a popular urban market in downtown Guadalajara (Alcalde Market), so their process implied a re-launch of their effort and a reconsideration of their role within it.

Two more projects can be categorized as production-oriented, including Entrepreneur I, who was a young Wirarika (Huichol) craftsman, who wanted to innovate in his design and business model, with a strong social and environmental perspective based on his community's traditions and philosophy. Entrepreneur J was a couple who were trying to save their wood furniture manufacturing business, which had a more successful past and was now struggling with new economic competition and understanding how to address environmental regulation to redefine their products.

Finally, two cases were particular, in the fact that they entailed social or environmental opportunities in their efforts: one was a new venture, which was defined as by Entrepreneur D as a non-profit, social project (a soccer school in underserved urban areas, to support juvenile engagement and health). The other was a for-profit venture (Entrepreneur H), focused on product recycling and education for waste management for businesses and schools.

General Results: Surveys, Workshop, and Interviews

As a general conclusion, it is evident that the social incubation process at Campus Guadalajara is essentially focused on business mentoring and economic viability, with an almost exclusive concern on economic issues and traditional in its approach to enterprise creation. In part, this is so, and perhaps even reasonable, because of the urgency to generate income for middle- and low-income persons and families by means of launching or consolidating their micro or small business. However, there is a lack of alignment (not only in the social incubators but in other entrepreneurship development efforts) between Tec's aspirations for sustainability and the execution of its incubation strategy. Indeed, while there is a discourse to promote consciousness in natural resource use and social responsibility, the incubation process at all levels replicates traditional business practices, which view sustainability as an externality or a burden.

This was reflected in a comment made to me by consultant Guillermo Levinton. While he agreed that sustainability definitively needed to be incorporated into a process of business mentoring, he defined the concept from a very accurate but fully economic-sustainability perspective: "Sustainability in the business context is an administrative focus that strives to develop businesses so they remain over time maintaining an equilibrium between the three main components: economic, social, and environmental." (personal communication, 2011).

If the Tecnológico de Monterrey is to truly make the case for sustainability in new enterprises, this needs to be made explicitly and must come from the top-down (i.e., campus and social incubator leadership, including professors and mentors). This is

currently not a “top-of-mind” issue, either in the leadership, the entrepreneurs and advisors, or the institution in general, despite its declarations and some efforts.

The next three sections present a summary of findings addressing the expectations considered for each of three specific research questions posited at the outset of the dissertation research process. Thus, general findings from the research process are discussed here under three broad themes, which are generally relevant for any process of business incubation: (1) Entrepreneur attitudes, goals, and motivations; (2) opportunities in sustainable value: Social and Environmental Potential; and (3) the role of social networks and of a broader support structure for entrepreneurs.

Entrepreneur Attitudes, Goals and Motivations

The first specific research question was established regarding the attitudes, goals, and motivations that each entrepreneur brought to their work at the social incubator. Broadly stated, this question has to do with what entrepreneurs are looking for in the social incubator and what moves them to engage with the social incubator. On the backside, I also questioned the approach of the social Incubator in attracting, screening, and selecting entrepreneurs and how these two processes align. As mentioned before, the general expectation regarding this question was that “entrepreneur goals and motivations are focused on economic outcomes and on the short-term economic results of their business. The social incubator responds to this as the main focus of their discourse and process.”

For the purposes of this study, these terms were defined in a specific manner related to the social incubator process at Campus Guadalajara. These definitions, which

can be reviewed in Box 1, informed the language of the surveys and the conversation during the interviews.

Box 1. Definitions

ATTITUDE: the general disposition or feeling that you have towards your enterprise and your capacities as an entrepreneur. This notion was stated in terms of *Enthusiasm* towards their enterprise and *Confidence* in their capacities and/or knowledge as a businessperson.
GOAL: Ends or personal and professional objectives that you wish to accomplish in this process (incubation). This notion includes general *Expectations* regarding the incubation process.

MOTIVATION: Basic or central incentive that moves you to realize certain actions. This notion focused on three possible motivations related to sustainability:

- *Preserve the environment and take care of natural resources*
- *Improve the economic results of my enterprise and mi family/personal income*
- *Contribute to improve human development and the well-being of my immediate community*

Knowledge and capacity building.

According to their stated goals, entrepreneurs come to the social incubator mainly to acquire concrete and applicable knowledge about business (in order to improve their business results). The incubator provides support in terms of human and social capital (or assets or capacities) and possibly only advice on how to procure physical, financial or natural capital (cf., Scoones 1998, Green & Haines 2012). This is supported in the results of surveys and interviews, where entrepreneurs explained their goals in a consistent manner around personal and business expectations of the social incubator “consulting process”.

In terms of more “personal” goals, in my experience as a participant observer and interviewer, these entrepreneurs all show the classic traits of an entrepreneurial spirit: a desire to create and execute, a capacity for personal resilience and effort, a tolerance for failure or marginal success, a tendency to dispersion, lack of focus, etc. (cf. Bygrave

2004 and others). In that sense, the social incubator builds on these basic entrepreneurial qualities. In general, their responses to the “attitude” questions in surveys reflected these traits, when all of the entrepreneurs reported to have high levels of enthusiasm towards their enterprise. In terms of confidence regarding their capacities / knowledge as a businessperson the responses were also high in general, but they did concede needed training in relevant and particularly identified areas of business know-how.

Regarding their goals, these were divided between more personal objectives and those more related to their business practices. As entrepreneurs explained to me, some of their more personal goals regarding the incubation process included: desire or need for independence (personal in terms of more time for themselves or family, and financial in monetary terms), looking for self-worth and a sense of achievement; urgency to supplement family or personal income because of unemployment (self or spouse) and general stability (family, self).

Among the business goals, some were clearly sensed or identified by the entrepreneur, while others potential weaknesses or gaps were found in the consulting process, even as early as the initial interview, and more accurately at the initial diagnosis (GROW-SWOT, explained below) during the semester. Entrepreneurs reported that among their business-related goals were very concrete and obvious needs to consolidate their knowledge in order to: launch or grow a business, make changes or diversify, improve their economic results, solve specific problems (e.g., how to establish a cost structure or a software platform), promote their efforts, etc. In some cases, they clearly expressed this in terms of making their project “viable” (often expressed as “sustainable”) but that was mostly expressed in economic terms, as I explain in the next Section.

Economic viability.

Ensuring the economic viability of a business is an obvious common theme and objective across all entrepreneurs and advisors (professors & students) in the social incubator. This is supported across all interviews, often with the explicit use of the term “sustainable” to explain their objectives (speaking of the “sustainability” of the business itself). Even in cases where the entrepreneurs had a social or environmental project, or were aware of implications of their business in those spheres, it was clear that without an economic focus there would be no business to speak of in the first place.

Most of the entrepreneurs are in the private/improvement quadrant of the purpose and opportunity model with others in the private/innovation quadrant and one in the public/improvement arena (I will discuss this more at the end of this Chapter). In general, in the workshop and in discussions, entrepreneurs expressed their expected visions for the future, and give priority to their success as a person, entrepreneur, and family member. Their preoccupation with the broader success of the community (i.e., public or shared value) is only considered after that.

In any case, regarding the economic viability of their business as a major goal and expectation of their work with the social incubator, entrepreneurs expressed several lines of thought their need for economic and/or business knowledge capacity building. Most of these needs are, again, focused on improvement and risk mitigation, while a few are able to express, from the outset, ideas for innovation and disruptive change. Among expressed economic viability goals, we find the following: basic to complex administration ability (e.g., pricing, finances, budget, etc.); need to diagnose their needs and opportunities, which is done via the GROW (or Goals / Reality / Options / Will) and the SWOT

(Strengths / Weaknesses / Opportunities / Threats) analysis at the beginning of the semester; identify and solve basic problems of the business (especially in operation); understand their reality and limitations; find new opportunities for growth; build strategic competency (which is done via the Business Model Generation process at mid-semester, identifying a unique value proposition, differentiation, new opportunities and alliances, etc.); understand their customer(s), their supply chain, potential partners, etc.; need to focus or expand their business opportunities; and identify, provide, implement tangible tools for the business: e.g., marketing, material, software, etc.

Motivations regarding Sustainable Value.

Both in pre- and post- analysis, findings show the expected positive trends in the attitude of entrepreneurs in terms of their *enthusiasm* about their project and *confidence* on their capacities as a business person. However, considering *satisfaction* with the incubation process, there is variability in terms of how well the process was conducted with each and how well they engaged with their advisors.

It is relevant to point out that, in AD/2011, the two entrepreneurs with social and environmental projects were the least satisfied (not so in JM/2011). This derives from a misalignment of expectations, where they did identify the need to become more viable economically, but the social incubator failed to adequately respond, even failing to understand in some cases how they could not be fully focused on the economic aspect of the business. Perhaps this points to a need for a “fourth sector” or “social impact” type of approach, where private and public purposes are not mutually exclusive. While this is just starting to happen in 2014 in Campus Guadalajara (with new courses for students on “Social Impact Enterprise Development”, this has already advanced elsewhere, most

remarkably in Campus Santa Fe and in the municipality of Zapopan (where the Campus and one of the social incubator locales is housed). This municipality launched its own government-backed social incubator, *Incuba Social*, in 2010. Campus Guadalajara is already collaborating with them to make synergies possible.

In a generic model of business incubation or business mentoring process, the focus is set, at least initially, on supporting the “attitudinal” aspects of entrepreneurs (their enthusiasm and confidence about their project and its potential outcome), building on their often innate capacities or “entrepreneurial spirit.” Later, the process builds on that foundation with (a) provision of information, (b) development of personal, applicable knowledge, and (c) capacity building to implement sound business practices (Levinton, 2011). I propose that somewhere in that process there is the chance to “deposit” information regarding opportunities beyond the economic outcome of the enterprise, more relevantly in social and environmental terms. This is what I have developed as the “motivations” for an entrepreneur, defining them as: “Basic or central incentive that moves you to realize certain actions” (see Box 1).

While it is evident that there may be innumerable motivations behind any human action and behind a particular entrepreneurial venture, my approach was to focus the notion of motivation around three potential aspirations, inspired by the three pillars of sustainability as follows: (1) Preserve the environment and take care of natural resources (an “environmental” motivation); (2) Improve the economic results of my enterprise and my family/personal income (an “economic” motivation); and (3) Contribute to improve human development and the well-being of my immediate community (a “social” motivation).

This was done in order to understand and discuss with participating entrepreneurs how this line of understanding may point to different ways of expressing a “case for sustainability in business,” even for cases where the pressing private economic realities often obscure other aspirations for a more “sustainable” or “shared value” approach. I used this triple-motivation model as part of my dialogue and exercises with entrepreneurs (see Figure 11). In general, from surveys and interviews, as well as my work in the workshop and observing incubator activities and participants, the following general conclusions can be advanced regarding motivations for action on sustainability in business by these entrepreneurs:

With the exception of the social entrepreneur, all of them see the economic motivation as a major focus of their preoccupations. Several of them “flip-flopped” on the relevance of social / environmental motivations, after the economic. On the one hand, it was evident from conversations that social and environmental issues formed part of their motivations (or even personal values), but they did not come up unless prompted during the interview. Thus, it was evident that they had not really thought about these issues with regard to their economic worries or motivation, hence the “flip/flop” between social and environmental concerns.

In any case, it was evident in survey results of this question and the conversations that they all generally see the economic viability of their business as a *means* to other social / environmental motivations, responsibilities, or opportunities.

Thus, in general, they all argued (in different degrees) that acting on their social or environmental motivations would happen at a later stage of business success, “once the economic part is solved,” “when we can invest in new equipment,” “when the conditions

of the business improve,” etc. In general, some entrepreneurs manifested that they were limited to act because of (a) lack of financial resources to pay for more expensive material, for example; (b) limitations imposed by suppliers / supply chain (e.g, I cannot do anything regarding how the products I am supplied with are packaged); and (c) customers response (most think that they are not willing to pay more, but some did identify potential for engaging higher-income customers).

Regarding social motivations: Most interpreted their social motivations in terms of basic business responsibilities or socio-efficient measures, such as fair wages, social security for their employees, paying their share of taxes. Some included the role of creating jobs for the community and some more sophisticated ideas (often dreams) about contributing to community education, entrepreneurship, public activities, etc.

Regarding environmental motivations: most recognize sustainability as an environmental issue, and promptly cite eco-efficiency type activities that they conduct or are willing to conduct as a business and as individuals (recycling, packaging, etc). More sophisticated actions to align their business strategy with environmental concerns are not readily expressed. In the case of Entrepreneurs A (eatery), B (popsicles) and F (market grocery), they expressed interest in organic and/or healthy products, responding to an environmental / social motivation. How fleeting that interest was and if they acted on it a future date was not assessed, but it is certain that the social incubator did not address or promote such initiatives.

Opportunities in Sustainable Value: Social and Environmental Potential

The second specific research question opened the possibility of discussing issues and opportunities beyond the pressing economic challenge of the business. In general, the intention was to assess if and how MoP/BoP entrepreneurs address a case for sustainability in business and explore other sources of value, from a social or environmental perspective. In this sense, I also looked at whether the social incubator address any of these issues and opportunities in their regular discourse and practice. As mentioned before, the general expectation regarding this question was that “because of economic constraints, MoP / BoP entrepreneurs do not consider social and/or environmental issues and the social incubator does not promote them formally. In general, the Social Incubator does not engage sustainability in its business training and incubation processes.”

In interviews, entrepreneurs do not bring up concepts of sustainability or sustainable development, but when prompted most showed that they have a relatively good grasp of what this means and what it might mean for their business. Most readily identify the environmental aspect, but also tend to discuss the economic viability aspect of the concept. None identified the social dimension as a sustainability issue when first prompted to discuss their understanding of the concept. Some of the projects that the incubator has worked with are clearly related to social and/or environmental concerns and opportunities, but often the economic focus of the process impedes a good consulting process to better serve those projects and improve results.

Most focus on the *private dimension of purpose* and on the *improvement dimension of opportunity* for their business goals and motivations (this will be discussed

in the final part of this Chapter). In the workshop, entrepreneurs worked on visions and some strategies for promoting sustainability, but were in general very basic or generic. In general, these visions were very superficial, but show promise of engaging the theme in the future, with further work and understanding, and more support from the incubator process.

Workshop and Results.

As a result of the “Sustainable Enterprise Visioning & Strategy” Workshop (held on October 6, 2011) and conducted by me as an intervention in the process of the incubator, entrepreneurs were inspired, at least in the short term, to explore other ways of prioritizing their goals, motivations, and strategies. In a short post-workshop survey, most of them found it useful or very useful (90%) and all of them reported considering a modification of their goals and motivations because of the content reviewed. Among the reasons given for this it is possible to highlight:

- I want to leave my children a business that is bigger (in financial terms) and that takes care of the environment and is good to people.
- I want to be more aware of new opportunities.
- Perhaps not change, but improve.
- Rearranging the business model to visualize the business as part of a community and with an environmental impact. It is adequate and useful.
- Need to integrate more the social and ecological focus to my business model.
- It helps us to reflect on where we are going.

The objectives of the workshop were shared at the outset of the program with entrepreneurs: (1) Be able to explain the idea of sustainability and sustainable enterprise; (2) Visualize challenges and opportunities to develop a sustainable business; and (3); Begin a reflection about your own vision and strategies to support sustainability, both personally and professionally. We explored an adaptation of the Business Model Tool (see Figure 12), which incorporated social and environmental considerations and opportunities. More concretely, we explored with the help of a simplified graphic tool (see Figure 10) the process of “backcasting” from vision to strategies.

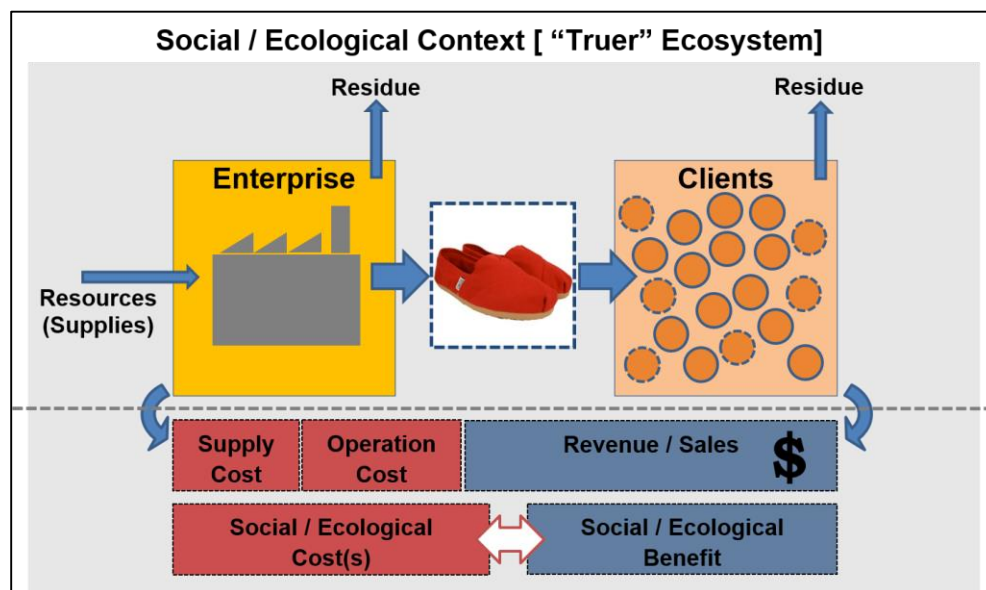


Figure 12. Modified Business Model Generation Tool for Entrepreneurs

These activities yielded a number of proposals for strategies in their business, which they shared in small groups and then with the whole group. Some were very tentative and perhaps naïve or vague, and there might be some lack of understanding as to what distinguishes a strategy from an action or a mere idea. Nevertheless, others prefigured a more complex understanding of how sustainability issues could provide new

ways of understanding their context and enhancing the prospects of their business (as proposed by Laszlo 2008, Unruh 2010 and many others). Among these strategy proposals are:

- E.A: Put more effort in the human aspect to have more clients and have a very good team and make my clientele aware of the importance of taking care of the environment.
- E.B: 1) Innovate in my business / 2) Look for a change in the ingredients considering the environment and health / 3) Think the growth of my business in terms of jobs generated and social wealth.
- E.C: I will keep a list of all the strategies that I can come up with and I will use more recyclable materials.
- E.D: Find the way to be profitable while at the same time helping the community.
- E.E: 1) Alliance with suppliers for the efficient use of natural resources; 2) Dare to break paradigms; 3) “Do well by doing good.”
- E.F: Use of ecological packaging; 2) Hybrid transportation; 3) Donations to Institutions; 4) Create a service so other store owners are more efficient.
- E.G: 1) Offer new services; 2) Improve my work process; 3) Find more markets.
- E.H: 1) Alliances with other businesses
- E.I: New alternatives; Motivation; Conscience regarding taking care of the environment in your business

Strategies from the final survey.

In the final survey, deployed two months after this workshop and at the end of the incubation process, I again requested their ideas for what they might be willing to do as a

sustainable enterprise. In terms of their motivations, there was not a clear trend in terms of any significant change (nor was this necessarily expected after such a short process). As has been mentioned, economic results still were placed in first place by all but two entrepreneurs: Entrepreneur D, of course (social project) and Entrepreneur F, who placed the social in that position (please see Table 5 at the end of this Chapter for a summary of how each entrepreneur ranked the three sustainability motivations, based on the interviews and the surveys). Better instruments would need to be deployed to understand motivations, but as a first approximation it provided validation of the general expectation of the preeminence of economic viability. It also allowed us to glimpse and discuss how they understood and approached sustainability issues.

As a summary of how entrepreneurs tried to address sustainability in their projects, Table 4 shows those entrepreneurs who, in the final survey, mentioned short term (ST), mid-term (MT) or long-term (LT) strategies with either environmental or social content. How “strategic” or “innovative” some of these ideas were is debatable, but in general it can be said that it is heartening that entrepreneurs could express some notion of a disposition to transition to other business practices, even at the level of actions or tools (in the FSSD model). The third column shows other general strategies or ideas not necessarily related to sustainable value.

TABLE 4. Final Survey: Summary of mentioned strategies related to Sustainability

	ENVIRONMENTAL			SOCIAL			GENERAL STRATEGY OR IDEA		
	ST	MT	LT	ST	MT	LT	ST	MT	LT
E.A		1					1	2	
E.B				1			3		
E.C	2								
E.D									
E.E	1	1				1			
E.F	1						1	1	1
E.G									
E.H	1			2					
E.I									
E.J	1			1	1				
	6	2	0	4	1	1	5	3	1

Looking in detail at survey results, it is evident that most of the sustainability-related strategies (social and/or environmental) proposed in the final survey were focused on improvement (eco-efficiencies). They point to the need for more work to be done, in order to support them in a move to a more effective proposal for the environment and/or the community. In any case, examples of these sustainability-related strategies were:

- E.A: Ecological packaging for my products.
- E.B: Change to improve the quality of my product, develop more promotion for the low-calorie products.
- E.C: Continue effort to recycle discarded packaging, use glasses for water in the store (rather than disposable cups).
- E.E: Battery recycling (referring to large batteries used in photography), explore a solar heater / panel, promote activities for the community.

- E.F: Promote organic and/or gourmet products, explore ways to help other store owners, bring social and recreational activities to the market.
- E.H: Develop products with recycled material, hire people with different capacities, do corporate social responsibility.
- E.J: Take care of the environment, develop events for the community, have better salaries.

Role of Social Networks and Broader Support Structure

The third and final specific research question addressed, albeit in a preliminary way, is how might the role of social networks and the presence of mentors and other contacts influence positively in entrepreneur outcomes (Wheeler et al 2005). These outcomes are not only understood financially, but also in terms of attitude, goals, and motivations regarding opportunities for addressing sustainability in their business. As mentioned before, the general expectation was that “Under normal operation, topics related to sustainability may appear in interaction with other actors, but there is no formal “plan” behind this in the discourse and practice of this social incubator.”

This issue, which requires further study, is pertinent as the “structure” surrounding a business venture (new or consolidated) is referred to as an “ecosystem”, i.e., the context in which a single business person or entity may thrive or wither. Entrepreneurs may often be individualistic in terms of their project, but they are undoubtedly social in how they pursue contacts for financing, supporting, promoting, and distributing their project (Bygrave 2004). In findings, participating entrepreneurs do show

an interest to interact with different actors and institutions, and a willingness to engage with others and learn.

This came through over and over in both surveys and interviews, where none reported having a “mentor” outside of the incubation process itself, but most of the group (70%) mentioned that they would have found that useful. In fact, Entrepreneur H (who was one of two entrepreneurs that semester who reported not being satisfied with the process) suggested in her final survey that professors and external advisors should be more present in the incubation process, since in her experience students were her main contact, quoting that “at the end of the day students really are learning, they don't have experience and it's like we have the blind guiding the blind”.

The social incubator process does come close to offering this, by means of the “Business Club”, a setting where periodical meetings (every three to four weeks) allow entrepreneurs to be exposed to other experts and advisors (via conferences or workshops that take half of the session) and to share with their peers the situation of their business and receive feedback and ideas. This Club setting is also used to include two lengthier talks and/or workshops, which take the full session. As I mentioned in the activities for AD/2011, that semester the leadership agreed to focus both of those sessions to topics related to sustainability (role-model conference and sustainable enterprise workshop.)

Entrepreneurs reported the Business Club as a major benefit of the process, with a keen appreciation of the benefit of peer mentoring and exposure to new ideas. In the case of the sustainable retail conference and the sustainable enterprise workshop, most of the entrepreneurs (90%) found them “useful” or “very useful”. There was at least a short-term positive reaction and interest, and the discovery and exploration of new

opportunities. For instance, Entrepreneur F, the small public market grocery, usually serves low-income customers but are in proximity to another market locale that is famous for selling quality fruit to higher-income people, who make the trip from other parts of town for that reason. After contacting with Eugenio Galindo during his conference, and with the availability that he had to offer his own store and products as a potential supplier or partner, Entrepreneur F briefly offered in their market stand a line of organic, natural, and healthier products.

Finally, during interviews and in surveys, it was evident that the proactive attitude and capacity of these entrepreneurs allowed them to actively seek contacts and opportunities without constraint to the incubator process. Indeed, many of them reported that they found the incubator by means of having heard of it in expos and other entrepreneurial events hosted by other pro-business organizations. It would be good, however, if the social incubator at Campus Guadalajara can harness their own contacts and develop a more deliberate manner of engaging entrepreneurs with these sought-after mentors who can not only bring their expertise, but perhaps most importantly their own collaboration, their networks, and perhaps their checkbooks.

It appears then that there is a chance and need to bring in more entrepreneurs and businesses, as examples, role models, and contacts, who are already in the “sweet spot” of balancing private and public values, and who are active innovators. Also, there is an opportunity to link to other entrepreneurial efforts working from the middle- to the top- of the socioeconomic pyramid, to create possible joint ventures, participate in supply chains, explore hybrid project in the “social impact” or “fourth sector”, fund social entrepreneurship efforts, etc.

Purpose and Opportunity in the Current State: An Assessment

To conclude this revision of findings, I draw attention to Table 5, which shows a summary of three distinct qualitative analysis of the current state information that entrepreneurs shared with me. The first set of information is more descriptive: it shows the Business Stage of each of the ten entrepreneurs, considering four categories: *Launch* (a venture that is starting or re-initiating activities); *Stasis/Risk* (a venture that is showing significant problems and is at an evident risk of failure), *Growth focused on improvement* and *Growth focused on innovation*. These are of course dynamic categories and the consulting process of the social incubator intends to have a positive impact on how the ventures evolve through these categories.

TABLE 5. Fall AD/2011 Entrepreneurs: Summary of Current State Analysis

ID Code	Type of Business	Business Stage				Motivation			Current State Position			
		Launch	Stasis / Risk	Growth [Improve]	Growth [Innovate]	Economic	Social	Environmental	Purpose		Opportunity	
									Private	Public	Improvement	Innovation
Entrepreneur A	Eatery (permanent food stand)			+		1	3	2	5	-	4	-
Entrepreneur B	Popsicles			+		1	3	2	4	-	2	-
Entrepreneur C	Medical and orthopaedic products				+	1	3	2	5	-	-	4
Entrepreneur D	Social Soccer initiative (non-profit)	+				2	1	3	-	4	3	-
Entrepreneur E	Photography Studio			+		1	2	3	4	-	3	-
Entrepreneur F	Groceries (Alcalde Market)	+				2	1	3	4	-	4	-
Entrepreneur G	Local courier company				+	1	2	3	5	-	-	1
Entrepreneur H	Product recycling and education	+				1	3	2	3	-	2	-
Entrepreneur I	Arts and Crafts (Wirarika)				+	1	2	3	3	-	-	3
Entrepreneur J	Wood Furniture		+			3	2	1	5	-	5	-

The second set of information is a reflection of the different discussions that I had regarding their “sustainability” motivations, particularly as they reported them in the final survey. The table shows each entrepreneur’s prioritization of their motivations. The emphasis on the economic viability of the business as a central motivation is clear, but it

is less clear how the other two motivations will be addressed in their future strategy. Again, this is a reflection of a moving target and a very recent consideration of other issues by these entrepreneurs.

Finally, the last section of Table 5 shows a qualitative but more complex analysis of where each entrepreneur currently stands on the Purpose and Opportunity dimensions. As a summary of my interactions and experience with them, as well as the results of surveys and interviews, I have qualitatively weighed where each entrepreneur stands in the Private / Public axis (Purpose) and the Improvement / Innovation axis (Opportunity). Using a 5-point scale for each of these four dimensions, I have placed the ten cases on the graph showing their relative position to the axis and quadrants (see Figure 13).

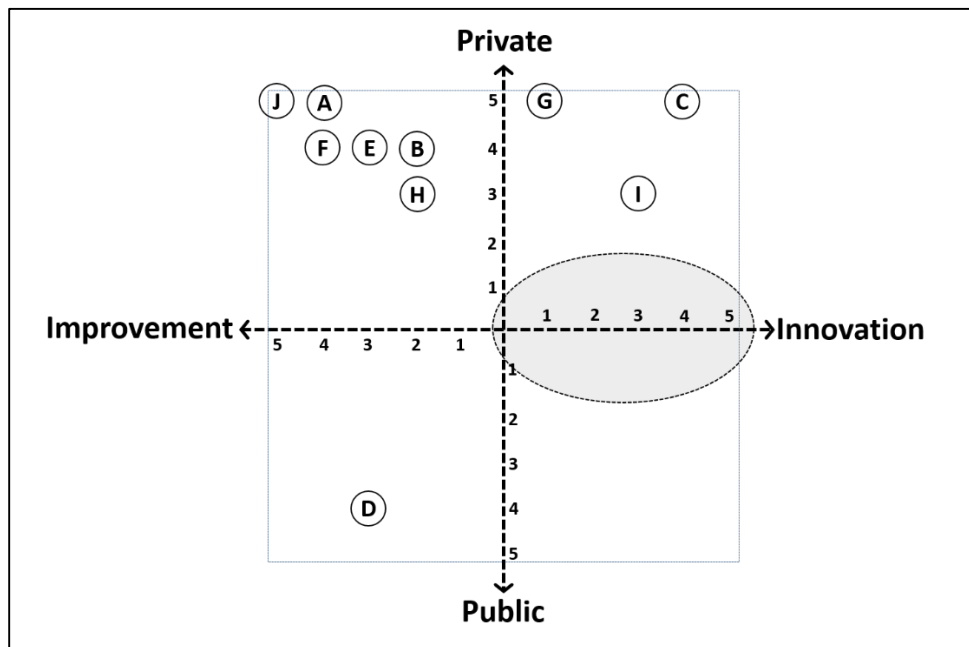


Figure 13. Purpose and Opportunity: Current State position of Entrepreneurs

As mentioned at the end of Chapter 2 when introducing this model, for the purposes of this analysis Entrepreneurs C, G and I are placed in positions of “innovation” not because they are currently innovating with sustainability in mind, but because their

attitude and actions in the consulting process show a capacity for innovation, which in the future may be harnessed by a value proposition that embraces sustainable value at the core of its strategic intent and its operational makeup. The rest of the Entrepreneurs are placed on the “improvement” side of the opportunity scale as all were deemed to be at different degrees of struggle with basic, operational improvements to the business (some of which could, if properly directed, be oriented towards sustainability objectives).

Regarding the Private/Public access of entrepreneurial purpose, only one of the cases had a purely social-benefit intent in his project. The rest were primarily focused on private benefit, with their placement on the vertical scale determined by whether or not they expressed, at the current time, interest or attention to the possible public benefits or impacts of their activity.

It should also be underlined again that being placed in one quadrant or the other is not necessarily better or worse. Hopefully, further exploration of this preliminary mapping exercise will reinforce it as a tool to locate and discuss the relative position of an entrepreneur along these notions of purpose and opportunity, and to work with them to define which direction her or his possible actions might take in order to move to a more sustainably-oriented position: one that can be potentially more fruitful, economically and socially, and where disruptive, sustainable value is sought with a balanced pursuit of private and public benefit.

To conclude this Chapter, and without being exhaustive, I would venture the following four major themes in terms of how participants view their results and how they might be improved. This may happen when (a) expectations are clearly aligned at the

outset; (b) mentoring is grounded in practical experience (relevance of business people as mentors); (c) broader issues (beyond economic) are brought into consideration (i.e., social and environmental motivations and opportunities) and, most importantly, exemplified in practice; and (d) the notions of sustainable value are more clearly aligned with the reality and experience of participants, and specific tools, actions, and strategies for sustainability in business are clearly distinguished concepts and provided as part of the toolkit of an entrepreneur.

These findings set up the central discussion that has been proposed as the general research question of this dissertation, namely: *“Can a new vision and strategies for the discourse and practice of social business incubation be proposed, on the conceptual basis of the case for sustainability in business, empirical efforts elsewhere, and both institutional and personal motivations and goals?”* In other words, how might a new vision and strategies for this social incubator network, based on sustainable entrepreneurship, be defined in collaboration with the different stakeholders.

These and other ideas will be explored in the next Chapter, dealing with a new vision and strategies to be considered for this and possible other social business incubators.

CHAPTER 4

DISCUSSION AND INTERVENTION PROPOSAL:

DESIGNING A NEW VISION AND STRATEGIES

This Chapter deals with the general research question of the dissertation, from a future-oriented perspective of sustainability research. In this sense, it develops a discussion of findings and an intervention proposal, to explore the potential design of a new vision and strategies for the social incubator under study. Here, based on the barriers identified in Chapter 2 and the findings regarding the current state (Chapter 3), I define a tentative model based on an identified vision for future entrepreneurship and incubation efforts at Tecnológico de Monterrey and in other organizations, both for middle- and base- of the pyramid social efforts and for other socio-economic or technological levels.

Towards a new Vision: Discussion and Intervention Strategies

This Chapter fully addresses the general research question of this dissertation, on the basis of the arguments for a transition described in Chapter 2 and the findings that were guided by the three specific research questions analyzed in Chapter 3. Based on the current state of the social incubator network under study, this Chapter considers the following overarching, future-oriented question: *why and how business incubation processes may foster sustainable enterprises at the middle and base of the socioeconomic pyramid (MoP/BoP).*

Though simply stated, the question is profound and complex. It entails in its essence a consideration of broader issues, including: how might a new vision and strategies for this social incubator network, based on sustainable entrepreneurship, be defined in

collaboration with the different stakeholders? And might a new vision and strategies for the discourse and practice of social incubation be proposed, on the conceptual basis of the case for sustainability in business, empirical efforts elsewhere, and the institutional and personal motivations and objectives of both the Tecnológico de Monterrey and individual entrepreneurs?

Initial Design and Implementation Interventions

A few general reflections and critique of the operation of the social incubator were made as part of the substantive and institutional background for this dissertation (see barriers at the end of Chapter 2). In that sense, several questions should be addressed, and can form the basis for actionable plans that the social incubator can pursue. These questions and related actions include: (1) How to define what type of businesses or sectors are attracted to the social incubator? (2) What types of business should the incubator actually enroll? (3) What are some programs or actions to promote a vanguard approach to sustainable enterprise in the incubator? (4) Is the social incubator leadership and staff ready and willing, as well as interested to engage in this?

These questions point to several interventions that can move this effort at Tec towards a more effective incubation of sustainable enterprises. With a focus on sustainable enterprise and the social incubator (rather than on specific entrepreneur cases), a few suggestions are listed in the following pages.

Regarding entrepreneur attitudes, goals, and motivations: The following initial interventions and challenges can be mentioned.

(a) Knowledge and Capacity building: there is a need to go beyond general or “technical” knowledge about business. The social incubator might and should incorporate knowledge regarding sustainability and sustainable enterprise. To move beyond the tension between expressed entrepreneur needs and objectives and how social incubator caters to these, clear and consensual plans must be developed before entrepreneurs begin their incubation process. These plans should begin to explore early on other forms of goals and motivations, and foster the inclusion of sustainability-related actions.

(b) Economic viability: ensuring the financial survival of a business is a common theme, and of course needs to be addressed as a central issue, with urgent relevance in the case MoP/BoP entrepreneurs. But on the basis of aligned plans, it should be possible to tap into social and environmental motivations to engage the full “Case for Sustainability in Business” as part of training and discussion in the incubator. Several entrepreneurs in the study literally expressed that acting on their social or environmental motivations would happen at a later stage of business success, “once the economic part is solved,” “when we can invest in new equipment,” etc. In general, some entrepreneurs manifested that they were limited to act because of lack of financial resources to pay for more expensive material, for example; limitations imposed by suppliers / supply chain (e.g, I cannot do anything regarding how the products I am supplied with are packaged); and the perception that customers are not willing to pay more. Again, a new vision for the social incubator might be able to address this economic viability challenge, facilitating links to

funds and other entrepreneurs (via a network of mentors and contacts) who may be able to scale up these initiatives.

(c) Motivations regarding sustainable value: focusing on “motivations” may provide a unifying theme, from the institutional (Tec) perspective, through social incubator leaders and advisors (professors / students), to entrepreneurs’ expectations, intentions, and actions. It is important to distinguish, early on, between objectives, motivations, and visions for the entrepreneur. Faculty advisors (and possible mentors) are better suited to develop the “spirit” and motivations of the entrepreneur, and thus their identification of and commitment to common, social and environmental causes. On their part, student advisors are more suited to help in improving the operation and identify new strategies and opportunities.

Regarding Opportunities in Sustainable Value (Social and Environmental Potential): There is a need to move from knowledge of concepts regarding sustainability (see above) to fostering activities that develop more sustainable visions and strategies for each entrepreneur. This should be based on the potential identified in the findings, through conversations with entrepreneurs, and which is currently not harnessed by the incubator. This potential or opportunity means not seeing sustainability as an “add-on” when economics improve, but as an “embedded” factor in strategy and operation of a business (Laszlo 2008, Unruh 2010). There is of course on-going discussion of whether or not this is possible in MoP/BoP setting, because of its inherent economic constraints. Nevertheless, there is an opportunity to move beyond such barriers to pursue novel ways of doing things, by engaging, for example, the entrepreneurs with other efforts and actors

(IncubaSocial, mentors and potential partners) and providing a path to identify and acquire funds (private or public).

Regarding the Role of Social Networks and broader support structure: The “Business Club” is an excellent tool and a fundamental part of the incubation process. However, more mentoring should be emphasized (example: Thunderbird School women entrepreneur project, where Afghan women are paired with local female entrepreneur mentors or Tec’s own E+E network program which is used to pair high-tech entrepreneurs with mentors). This potential action highlights the importance of links to other actors and institutions related to sustainable enterprise, including advisors and other businesspeople and formal or informal mentors. This, again, opens the possibility for funding, sponsoring, and partnering to support cash-strapped entrepreneurs (cf. Wheeler et al 2005).

An area of opportunity in research related to this dissertation is the need for and proposal of a model for evaluating outcomes in the future, based on the purpose and opportunity model, but incorporating hard-data measures of business success, broader social impact, and entrepreneur satisfaction. These measures have to be taken both in the short- and the long-term for informing future decisions.

In addition, a few very concrete recommendations can be made: (1) separation between profit and non-profit enterprises should be erased (or at least explored or even tolerated) in the social incubator; (2) need for top-down commitment from Tec leadership is required, to align institutional mission with action in the social incubator sphere; (3)

need to align motivations and expectations from the outset of each individual process; (4) need for a broader, planned, and long-term intervention process, as short-term or localized actions provide only fleeting change and brief focus on the issues of sustainability; (5) explore the opportunity to integrate efforts across the different “levels of the pyramid,” in other words, engage BoP / MoP entrepreneurs with high-income mentors and role models, opening potential opportunities for collaboration as suppliers, sources of funding, partnership, etc.; (6) enhance the fundamental role of mentoring and social networking to promote internally (at Tec and at the social incubator) the transition to a more sustainable enterprise approach and for supporting sustainable enterprise initiatives.

Potential Catalytic Mechanisms for a Transition

Two strands of literature, can support the following suggested suite of actions to promote the first steps toward a transition in the social incubator setting. Collins and Porras (2002) describe fundamental characteristics of strong businesses and the notion of catalytic mechanisms for effecting change and executing strategies. Robèrt et al (2002) in their proposal of the FSSD approach facilitate a whole-system view, which helps in the assessment of where a business is and where it can go, without affecting its resource base and its community, promoting the creation of more sustainable endeavors. There is a clear intersection between these approaches and, as we have discussed before, with the efforts related to social entrepreneurship and community engagement.

In their analysis of companies that are able to sustain their activity and relevance across decades, Collins and Porras (2002) describe a series of general features which

include: the presence of permanent core values and ideology in support of lofty visions; the inclusion of non-profit objectives; the continuous capacity and passion to evolve and to attempt innovations; and the idea of embracing “the genius of the AND” (rather than the limitations of the “OR”).

On their part, the FSSD approach (described in Robèrt et al, 2002) considers a systemic approach for businesses that are transitioning towards sustainability. In this sense, synergies must be found and supported first by understanding the system in which the business (or organization) operates; second, by defining a vision for success (what success “means” within that system); and third, by defining strategies to achieve that vision, embracing diverse actions and tools (eg., life-cycle analysis cradle-to-cradle, etc.) in a synergistic and complementary manner. In addition, the efforts of different actors need also to be bridged and complemented synergistically to achieve results.

Finally, as discussed earlier in these pages, social and BoP strategies that have been espoused by many in the last decade –particularly in business– entail a number of elements that resonate with the two approaches described above. These include: the possibility of a simultaneous pursuit of purpose and profit, with mutual benefit both for private and public actors; the implied synergistic activity of diverse actors, with special attention paid to those who are local and/or underserved; the potential achievement of large goals and visions (i.e., broad-scale social impact) while pursuing smaller-scale goals and objectives (business, individual, and family livelihood improvements).

Although each description prefigures some aspects of coincidence, a potential intersection of these approaches can support a transition towards a sustainable business incubation model in each of the main elements of a sustainability transition framework:

(a) Current System - Understand and act on a clear definition of the context, which includes the core values, motivations, and interests of an organization as well as its relation with its community; define clearly, without presuppositions or assumptions, the full system in which the organization will act, including all relevant stakeholders; consider all available assets and tools and the specific needs to be addressed.

(b) Vision - Establish a clear view regarding a desirable future, normatively assessing what is to be considered in order to move towards it; negotiate to establish a balance between public and private purpose as the outcomes of an organization.

(c) Strategies and Actions - Define and execute strategies, integrating tools and actions (AND rather than OR); test and experiment, learning and reflecting on the basis of results; integrate actors and efforts, different perspectives, interests, objectives and values, in order to achieve better results.

On this basis there is a possibility of launching a number “Catalytic Mechanisms” in the social incubation context. According to Jim Collins (1999), a catalytic mechanism is generally defined as a fundamental link between goals and execution, a sometimes small process or element in an organization (or in an individual’s life) that translates ambitious visions into concrete reality. Many catalytic mechanisms are small changes that have the ability to trigger multiple actions across a system, in the direction of stated goals and visions. In the sense of the transition model, catalytic mechanisms form part of the broader strategies for change. They can also be identified with the specific actions and tools of the FSSD’s synergistic approach, which as a group support broader actions and strategies for change.

Considering a broader system (e.g., the socioeconomic system of an urban or rural community or region), a social business incubator can be considered a catalytic mechanism in itself. Because the case of the Tecnológico de Monterrey's social incubator network has not yet been defined as pursuing sustainable types of business, there is an opportunity to incorporate a series of "catalytic mechanisms" to move in the direction of more desirable results for both individual entrepreneurs and for the community in which they operate. Again aligned to the transition methodology, some examples of these catalytic mechanisms might be:

- Implement small group discussions on basic sustainable enterprise concepts and strategies, to introduce new considerations in the current state. This can focus the perception of entrepreneurs (as well as participating mentors, students, and staff) regarding their position as an enterprise in the nested structure of biophysical reality, economy and society. It can also build capacity in all actors in order to identify strategies and visions, and define a plan to move towards them.
- Emphasize at the beginning of the process an analysis of entrepreneur and community assets and needs, keeping these present and visible throughout the process, from the initial alignment of goals, motivations, and expectations to the final process of measuring outcomes.
- Measure and communicate the social impact of the activity of the incubator, in at least some of the measures and concepts proposed by London (2009), to emphasize and give follow-up to diverse forms of outcomes for the entrepreneurs and the community as a whole (e.g., economic outcomes, capacity development, relationship building, etc.).

- Identify early on potential products or entrepreneurs that are already on or amenable to take a more sustainable route, and engage them with exemplary cases of first movers, in order to evidence the potential of change and success. This exposure will present different types of capital (natural, social, human) and business outcomes, but will most importantly open a discussion of concerns and perceptions related to sustainability and of the form that they are being implemented in practice at the local context of the social incubator.
- Following Collins' concept of "putting the right people in place", ensure that the social incubator staff (including participating professors and students) is sensitized to the challenges of sustainability and trained to provide guidance and support.

These catalytic mechanisms are only an initial idea of processes or elements that might be incorporated in the future operation of the incubators (at Tec and potentially in other, similar efforts elsewhere). They complement the initial design and implementation interventions mentioned previously in this Chapter, and they set up a concrete plan of action to continue and consolidate the transition that was in fact initiated by the intervention-oriented approach of this research.

In the final Chapter of this dissertation, I will address the general conclusions, the potential contribution, and the future directions of this research and practice effort. This final discussion includes the proposal of three final reflections to inspire and define change and a set of five key recommendations, which are proposed as critical first steps in a potential agenda for a transition.

CHAPTER 5

CONCLUSION AND FUTURE DIRECTIONS

This Chapter contains a final reflection on the learning outcomes and findings of this research endeavor. First, in an executive summary, I present the key lessons and recommendations that derive from the findings. In the second part of the Chapter, I will assess briefly how these insights might be applicable and useful for this network and other efforts in social business incubation, proposing a brief set of ideas about the contribution of this dissertation and potential future directions for research. These include opportunities for future exploration both in the substantive matter of the dissertation (the transition to sustainability as a desirable goal in the practice and discourse of social business incubation) as well as in potential avenues for academic research.

Executive Summary: Key Lessons and Recommendations

In closing this dissertation, it becomes important to draw a set of final, concrete reflections on the learning outcomes of the research, and of the most critical, strategic recommendations to support the transition of this social incubator (and potentially other related efforts) towards a more sustainable vision.

A first reflection around the efforts of the social incubator must center on whether or not the fundamental goal and motivation of the entrepreneurs and their advisors is met, in other words to question if this incubator helps to create economically and operationally *VIABLE* businesses. Based on the assessment of the current state of practice and discourse at the social incubator, it is possible to see some level of success in helping the entrepreneurs survive and, in some case, begin or consolidate a path to growth. But the

real challenge is that the definition of “success” is not established strategically or systemically for the social incubator as a whole, but is most often a factor of the attitudes, goals, and motivations of each entrepreneur. As long as the measure of success is defined on a case-by-case basis by each entrepreneur (even with the help of their advisors), it will be hard to assess if the “viability” of each business means anything in a broader economic, social, and environmental context.

A second reflection must be made in order to assess whether or not this social incubator effort helps to create *SUSTAINABLE* businesses, as defined in this dissertation. The answer, in the current state of objectives and operations, is obviously no: as has been amply demonstrated, the social incubator in general focuses on private, traditional market-oriented, and economic measures of growth, revenue, and innovation. It thus lacks a declared and organized inclination to pursue social and environmental objectives and to measure other forms of impact and/or benefit. In addition, there is argument to be made, from a sustainability perspective, that a business that is not motivated by sustainable development goals, motivations, and practices is a business that in the long run will, in fact, be unviable (particularly in the growing context of stakeholder influence, resource scarcity, environmental risk).

The third reflection has already been prefigured in the discussion around the “steps” in the approach to sustainability by business (cf. Figure 7). Indeed, sustainable value action and innovation can be effected, by an individual business or entrepreneur, in any level of complexity: (a) by transitioning to sustainable product or service offers, (b) by aligning a production or operational process by means of efficiency, supply chain collaboration, etc.; and (c) as a system-wide transformation that incorporates

sustainability as the core strategy for the business in all its aspects (cf. Laszlo 2008, Senge et al 2008, Unruh 2010, Hart 2010). Though the first two levels of complexity are a step in the right direction, it is only an innovative, systemic, forward-looking and transformational approach to sustainable business that will make a difference for the viability of individual business and the society and environment in which they operate (Robèrt et al 2002). The social incubator must address this as the central issue of its discourse and practice.

Finally, five key recommendations can define the most critical elements of an agenda for transition in the social incubation process at Campus Guadalajara and may inform other efforts elsewhere:

(1) Create a definition of success in the incubator “system” as it relates to the broader social and environmental context in which it operates and align it to specific forms of measuring short- to long-term outcomes, case-by-case and in the aggregate of the businesses and the community it serves. This can be based on models that address societal effects, such as Wiek et al (2014) and London (2009).

(2) Ensure that this definition of success moves the goals and motivations away from an exclusive focus on *economic viability* towards a truly innovative, strategic, and systemic common goal of *sustainability*;

(3) Evolve the Business Generation Model assessment to incorporate in an effective manner cost/benefit considerations regarding society and the environment, to foster the creation and development of value propositions that consider sustainability as their core strategy;

(4) Locate and/or develop case studies of successful, local, small-scale sustainable businesses that can serve as role models, providing example and motivation, and develop personal connections to them and to other successful business entities; and

(5) Build capacity in faculty and student advisors and in the social incubator staff, so that they are able to identify the potential of innovative sustainable value propositions in participating entrepreneurs, in order to guide them in understanding and generating effective and transformational visions, strategies, and actions.

Contribution and Future Directions

The intellectual merit of this project rests in providing new insight to three fields of the literature (and practice) which are seldom considered concurrently: social entrepreneurship, corporate community involvement, and regional sustainable development. This research provided evidence of how private- and public-oriented approaches to development may be mutually reinforced for addressing social, economic, and environmental problems by Middle- and Base-of-the-Pyramid entrepreneurs.

This research project also entailed a theoretical and practical contribution by means of its conception and research design, which did not rest on traditional, separate measures of business or community success. The research design, inspired in social intervention approaches (Fraser & Galinsky 2010), also allowed the opportunity for active learning and reflection by the different stakeholders through the process of data collection and interaction with the researcher.

The intellectual merit of this research project was enhanced by my previous academic and administrative experience in the Tecnológico de Monterrey System, a

position in which I oversaw the initial creation of a Tec social incubator (at Campus León) and other practical applications related to entrepreneurship and regional development. This experience provided a broader perspective and understanding of issues, implications, and opportunities (in terms of regional development, capacity building, training and education, etc.) and facilitated my access to and interaction with the social incubator network and its stakeholders.

The broader impacts of this project include not only the scholarly and professional training of a researcher, but also the contribution of concrete, applicable knowledge regarding business incubation as a tool for a form of social and economic development that may be better focused on the solution of sustainability problems. This project provided a thorough and interdisciplinary understanding of "social" incubation processes and practices, a result which will allow not only for the improvement of the network under study, but for exploring potential applications in other contexts and/or periods.

Centered on the concept of individual and community capacity development and collaboration, this project may also provide lessons to understand the private and public (social) results of training (knowledge transmission and skill or competencies development) and of the interaction between actors (MoP and BoP entrepreneurs and businesses, as well as students, faculty, and others). These lessons will be of course relevant for the Tec itself (where there is already interest, on the part of administrators, in the results of this study) and can also have the potential to impact government and corporate endeavors, more importantly because of the wide influence of the Tec in the national Mexican context.

In summary, this study may provide a platform for making the case, under diverse arguments and for different stakeholders, for (a) pursuing private/public collaborations, (b) creating social, commercial, and financial networks for sustainable development, and (c) actively engaging underrepresented populations by building on their existing capacities and assets to pursue a better, more sustainable livelihood.

The results of this research can be made available to different audiences in the fields of social entrepreneurship, community involvement, and regional sustainable development, not only for academic and theoretical interest, but also for practical application. This dissemination may be intense within the institution under study, by means of presentations and workshops at the social incubator sites in Campus Guadalajara and other regions and by my participation in future research and social education and training conferences. Thus, while this research project centered on one small subset of social incubators and a small group of entrepreneurs, the fact that the network is extended across Mexico allows for the possibility to envision a broader set of impacts from these results and recommendations. Finally, dissemination will also include a broader diffusion of research results and recommendations to the community at large by means of publications and public presentations (in relevant journals and appropriate conferences).

Furthermore, the contribution of this work also lies in providing a sound, theoretical reflection around a business incubator effort. Because of its very nature, this type of endeavor focuses almost entirely on practice, with very little revision of their own philosophy and performance (because of lack of resources, time, or expertise, because it is not in their objectives to do so, because they lack a methodology of self-evaluation and continuous improvement, etc.) This dissertation provides material for a practice-oriented

theoretical discussion about the goals and motivations of social incubation from a sustainable business perspective.

This contribution includes a tentative but relative mapping of concepts and models regarding sustainable value and entrepreneurship. This may allow for a broader understanding of linguistic or epistemologic uses of definitions and concepts by the social incubator and by entrepreneurs, to clarify and enhance their visions and the application.

Finally, this study provides insight to the discussion of whether or not the concept of “entrepreneurship ecosystem” is appropriate in the current social, environmental, and economic context. I want to convey, as an important conclusion and contribution, that “traditional” approaches to entrepreneurship and to business incubation usually focus on constructing “ecosystems” where new businesses may grow, literally. However, such “ecosystems” usually involve only aspects that are relatively internal to the business and or to their immediate, economic concerns (i.e., innovation support for new products or services, financing sources, business advice from experts, etc.).

As with most of business practice in general, the fact that the business operates within a broader ecosystem is not addressed. In my perspective, a “broader” ecosystem should include both the social milieu in which the business must operate (i.e. the immediate community, other stakeholders, etc.) and the actual, physical natural environment that is so often treated as an externality (a resource pool and/or sink, a given asset with purportedly no measurable, monetary value). This is what some in the business literature refer to as “Non-Market” aspects of the business (see Figure 14.)

This concept is a step in the right direction, but there are certainly other steps to take to truly reflect the rightful place of a company as a responsible party to society and

to the environment (please note that the diagram below uses the word “environment” but even it fails to incorporate natural aspects into view, perhaps only via the voice and work of activists, NGOs, regulators, and concerned citizens.)

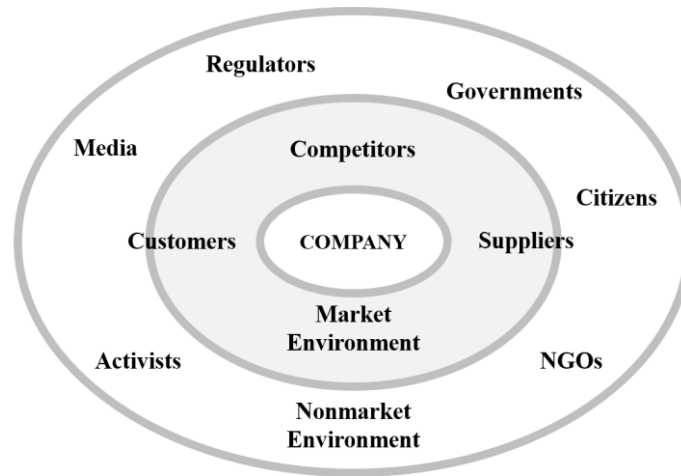


Figure 14. The Nonmarket Environment of Business (Bach and Allen, 2010)

A truer representation of an entrepreneurship ecosystem, that indeed addresses sustainability (economic, environmental, social), might be more similar to Figure 15, where the company is clearly within the other spheres and its actions are conditioned, limited, and sometimes rewarded by a broader, social and environmental context. This vision, perhaps not surprisingly, is a departure from the way that the business community in general understands their connection to society and environment. Addressing and visualizing sustainability in business and entrepreneurship ecosystems in this way can help make social and environmental concerns and opportunities clearer and more aligned to a company’s and a community’s visions, strategies, and actions.

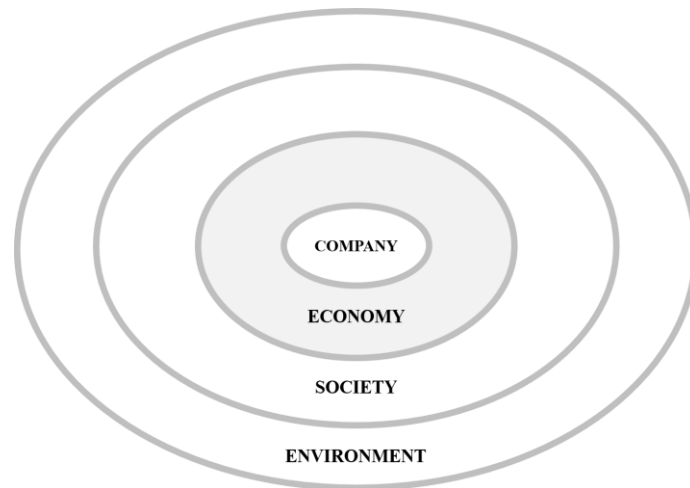


Figure 15. A “Truer” Business Ecosystem (after Basile)

Closing

A brief final word, to summarize and enhance the message of the grand potential that resides in these centers, as places for the improvement of human capacity for positive transitions. The social incubator at Tecnológico de Monterrey, with its pioneering work begun in 2006, and other efforts that have developed worldwide in the past three or four years, are extraordinary motors for social innovation that can support and enhance localized transitions to sustainability (cf. Nilsson 2003, Westley et al 2006, Westley 2008). In the case of the social incubator network at Tecnológico de Monterrey, while the current focus of operation of the incubators seems to reflect a "top-down" approach to community development on the part of the university and other engaged participants (as a community or social responsibility development effort), future work can assess the promise of viewing the social incubators under another light, described in the most pressing recommendations listed previously in this Chapter.

Indeed, there seems to be a potential to involve the entrepreneurs in "designing" their own incubation process and their opportunities, in a way that better reflects the sustainable livelihoods "bottom-up" approach (Scoones 1998) and the BoP Protocol's "co-creation logic" (cf. Simanis & Hart 2008). Thus, a social incubator might truly become a "Community Based Organization" (Green and Haines 2012), more engrained in the fabric of a society and with more capacity to generate collective action. In this sense, the social incubators would consolidate as an important "physical capital" for the community, as well as a major element in its entrepreneurial ecosystem. This is an opportunity for them to become a truly transformative force for sustainable development, by articulating the efforts of diverse actors committed to shared purpose and opportunity, actors who focus simultaneously on the public and the private, and who align efforts to continually move between sustainable improvement and innovation.

In conclusion, if it articulates this systemic vision, Tecnológico de Monterrey is poised to become, at least for Mexico, an example of the possibility of achieving its own efforts to be a successful sustainable enterprise (in every sense of the concept), of aiding other enterprises and institutions in the search for sustainable solutions, and of thus becoming a true motor for sustainable development within the broader socio-environmental system. Further research and analysis may provide guidance towards the implementation of this possibility as an example of a strategic, systematic, and integral approach to planning and decision making by a higher-education system.

It has been almost three decades since the WCED emitted its definition of sustainable development. As an outcome of the 2012 United Nations Conference on Sustainable Development (Rio+20), interested parties (including businesses) are working

to develop a notion of and a plan for concrete sustainable development goals. In this context, it seems fair to reflect on what the Tecnológico de Monterrey and other universities have achieved regarding sustainability, where they have fallen short of expectations, and what efforts would need to be redoubled in order to achieve the potential of the triple goal of economic success, social equity, and natural balance.

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BIOGRAPHICAL SKETCH

Trained professionally as an architect, Mark Williams Wood has practiced architectural and urban design. In parallel to this professional activity, he initiated in 1994 an academic career at the Tecnológico de Monterrey. There, he held various academic and administrative positions: Professor, Department of Architecture (Campus Monterrey, 1994-1995); Director, Department of Architecture (Campus Guadalajara, 1996-1999); and Campus President (Campus Mazatlán, Campus Hermosillo, Campus Leon, 1999-2008).

He holds a professional degree in Architecture (B.Arch) from the Tecnológico de Monterrey, Campus Monterrey (1990) and received a Master of Architecture (M.Arch) degree with specialization in Design from the School of Architecture at the University of Texas at Austin (1994). In August 2008, he began his PhD studies in the School of Sustainability (SOS) at Arizona State University.

During his PhD studies, he promoted education in sustainability as a Teaching Assistant (“Sustainable Cities” course, 2008-09) and a Fellow in the NSF-funded GK-12 “Sustainability Science for Sustainable Schools” program (2009-11). He has also represented SOS as a facilitator and presenter in conferences and various community and professional events.

Since August 2013, he returned to Mexico and now leads the “Area of Excellence in Sustainability” Program at Tecnológico de Monterrey, Campus Ciudad de México (in Mexico City). In this capacity, he promotes academic and research projects in the field, and also facilitates the relationship with Arizona State University and GIOS.